Odest Chadwicke Jenkins

Curriculum Vitae November 12, 2024

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Education

Ph.D.	Computer Science, University of Southern California, December 2003. Dissertation Title: *Data-driven Derivation of Skills for Autonomous Humanoid Agents*. Dissertation advisor: Prof. Maja J Matarić.
M.S.	Computer Science, Georgia Institute of Technology, June 1998. Master's project: *A Parameterization for Simulating Dynamic Human Basketball Shooting*. Project advisor: Prof. Jessica K. Hodgins.
B.S.	Computer Science and Mathematics, double major, cum laude, Alma College, April 1996.

Professional Appointments

7/2022-	*Professor*, Robotics Department, University of Michigan, Ann Arbor, MI.
9/2020-	*Professor*, Computer Science and Engineering Division, Electrical Engineering and Computer Science Department, University of Michigan, Ann Arbor, MI.
9/2015-9/2020	*Associate Professor*, Computer Science and Engineering Division, Electrical Engineering and Computer Science Department, University of Michigan, Ann Arbor, MI.
7/2010-8/2015	*Associate Professor*, Department of Computer Science, Brown University, Providence, RI.
7/2012-1/2013	*Visiting Research Scientist*, Willow Garage Inc., Menlo Park, CA.
7/2004-6/2010	*Assistant Professor*, Department of Computer Science, Brown University, Providence, RI.
11/2003-6/2004	*Postdoctoral Researcher*, Robotics Research Lab, Computer Science Department, University of Southern California, Los Angeles, CA.
8/1998-10/2003	*Graduate Research Assistant*, Computer Science Department, University of Southern California, Los Angeles, CA.
8/1997-6/1998	*Graduate Teaching Assistant*, College of Computing, Georgia Institute of Technology, Atlanta, GA.
6/1997-8/1997	*CAD Engineer/Intern*, Intel Corporation, Folsom, CA.
8/1996-6/1997	*Graduate Research Assistant*, Electronic Systems Lab, Georgia Tech Research Institute, Georgia Institute of Technology, Atlanta, GA.

5/1995-8/1995	*Systems Intern*, Ford Systems Integration Center, Ford Motor Company, Allen Park, MI.
5/1994-8/1994	*Undergraduate Research Intern*, PRISM Lab, Computer Science Engineering, University of Texas at Arlington, Arlington, TX.
8/1993-5/1996	*Resident Assistant*, Office of Student Affairs, Alma College, Alma, MI.

Academic Honors, Fellowships, Honorary Societies

2024	Richard A. Tapia Achievement Award for Scientific Scholarship, Civic Science and Diversifying Computing, CMD-IT / Association for Computing Machinery
2023	Harold R. Johnson Diversity Service Award, University of Michigan
2021	Fellow, Association for the Advancement of Artificial Intelligence
2020	North Campus Deans MLK Spirit Award, University of Michigan
2020	Fellow, American Association for the Advancement of Science
2018-19	Defense Sciences Study Group
2017-18	Trudy Huebner Service Excellence Award, College of Engineering, University of Michigan
2017	Senior Member, Association for Computing Machinery
2017	Senior Member, Institute of Electrical and Electronics Engineers
2015	Karen T. Romer Prize for Undergraduate Advising and Mentoring, Brown University
2013	National Geographic Emerging Explorer
2011	Popular Science “Brilliant 10”
2009	Sloan Research Fellowship, Alfred P. Sloan Foundation
2008	Young Investigator Award, Air Force Office of Scientific Research
2007	Presidential Early Career Award for Scientists and Engineers (PECASE)
2007	Young Investigator Award, Office of Naval Research
2005	Honorable Mention, 2004 Freescale Wireless Design Challenge
2003	Upsilon Pi Epsilon, Computer Science Honorary Society
2003	Autonomous Agents and Multi-Agent Systems Conference Travel Award
2003	Graduate Student Leadership Award, University of Southern California
2002	Office of International Services Outstanding Leadership Award, University of Southern California
2000	AAAI Student Exhibitor Travel Scholarship
2000	Autonomous Agents Conference Travel Award
1998-2001	University of Southern California All-University Predoctoral Fellowship
1996-1997	Georgia Tech College of Computing GTE Fellowship

1996	Senior Leadership Award, Alma College
1995	Omicron Delta Kappa, Academic Honorary Society
1993-1995	Alma College Dean's List

Publications

Major Curricular Dissemination

2023 O. C. Jenkins, J. Grizzle, E. Atkins, L. Stirling, E. Rouse, M. Guzdial, D. Provost, K. Mann, and J. Millunchick. The michigan robotics undergraduate curriculum: Defining the discipline of robotics for equity and excellence. *arXiv preprint arXiv:2308.06905*, 2023.

Books

2009 M. McGuire and O. Jenkins. *Creating Games: Mechanics, Content, and Technology*. AK Peters, 2009.

Chapters in Books

2010 M. Vondrak, L. Sigal, and O. Jenkins. Dynamics and control of multibody systems. In *Motion Control*, pages 1–30. InTech, Jan 2010.

2009 D. H. Grollman and O. C. Jenkins. Can we learn finite state machine robot controllers from interactive demonstration? In *From Motor to Interaction Learning in Robots*, pages 405–429. Springer, 2009.

2007 E. Chang and O. C. Jenkins. Sketching articulation and pose for facial animation. In Z. Deng and U. Neumann, editors, *Data-Driven 3D Facial Animation*, chapter 8, pages 132–144. Springer, 2007.

O. Jenkins, G. González, and M. Loper. Recognizing human pose and actions for interactive robots. In *Human-Robot Interaction*, chapter 6, pages 119–138. InTech, 2007.

Refereed Journal Articles

2024 A. Opipari, A. K. Krishnan, S. Gayaka, M. Sun, C.-H. Kuo, A. Sen, and O. C. Jenkins. Configurable embodied data generation for class-agnostic rgb-d video segmentation. *IEEE Robotics and Automation Letters*, 2024.

A. Opipari, J. Pavlasek, C. Chen, S. Wang, K. Desingh, and O. C. Jenkins. Dnbp: Differentiable nonparametric belief propagation. *ACM/JMS Journal of Data Science*, 1(1):1–24, 2024.

J. Pavlasek, J. J. Z. Mah, R. Xu, O. C. Jenkins, and F. Ramos. Stein variational belief propagation for multi-robot coordination. *IEEE Robotics and Automation Letters*, 2024.

2023 K. D. French, J. H. Kim, Y. Du, E. M. Goeddel, Z. Zeng, and O. C. Jenkins. Super intendo: Semantic robot programming from multiple demonstrations for taskable robots. *Robotics and Autonomous Systems*, 166:104397, 2023.

2021 A. Adu-Bredu, Z. Zeng, N. Pusalkar, and O. C. Jenkins. Elephants don't pack groceries: robot task planning for low entropy belief states. *IEEE Robotics and Automation Letters*, 7(1):25–32, 2021.

Q. Brown, T. Grandison, J. D. Burge, O. C. Jenkins, and T. Dillahunt. Reflections on black in computing. *Communications of the ACM*, 64(4):23–24, 2021.

2020 T. Cohn, O. C. Jenkins, K. Desingh, and Z. Zeng. Tsbp: Tangent space belief propagation for manifold learning. *IEEE Robotics and Automation Letters*, 5(4):6694–6701, 2020.

Z. Sui, H. Chang, N. Xu, and O. C. Jenkins. Geofusion: Geometric consistency informed scene estimation in dense clutter. *IEEE Robotics and Automation Letters*, page in press, 2020.

Z. Zhou, X. Chen, and O. C. Jenkins. Lit: Light-field inference of transparency for refractive object localization. *IEEE Robotics and Automation Letters*, 5(3):4548–4555, 2020.

2019 K. Desingh, S. Lu, A. Opipari, and O. C. Jenkins. Efficient nonparametric belief propagation for pose estimation and manipulation of articulated objects. *Science Robotics*, 4(30):eaaw4523, 2019.

2017 J. E. Laird, K. Gluck, J. Anderson, K. D. Forbus, O. C. Jenkins, C. Lebiere, D. Salvucci, M. Scheutz, A. Thomaz, G. Trafton, R. E. Wray, S. Mohan, and J. R. Kirk. Interactive task learning. *IEEE Intelligent Systems*, 32(4):6–21, 2017.

Z. Sui, L. Xiang, O. C. Jenkins, and K. Desingh. Goal-directed robot manipulation through axiomatic scene estimation. *International Journal of Robotics Research*, 36(1):86–104, 2017.

2013 M. J. Buller, W. J. Tharion, S. N. Cheuvront, S. J. Montain, R. W. Kenefick, J. Castellani, W. A. Latzka, W. S. Roberts, M. Richter, O. C. Jenkins, and R. W. Hoyt. Estimation of human core temperature from sequential heart rate observations. *Physiological Measurement*, 34(7):781, 2013.

M. Vondrak, L. Sigal, and O. C. Jenkins. Dynamical simulation priors for human motion tracking. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(1):52–65, 2013.

2012 J. Bandouch, O. C. Jenkins, and M. Beetz. A self-training approach for visual tracking and recognition of complex human activity patterns. *International Journal of Computer Vision*, 99(2):166–189, 2012.

S. Osentoski, B. Pitzer, C. Crick, G. Jay, S. Dong, D. Grollman, H. B. Suay, and O. C. Jenkins. Remote robotic laboratories for learning from demonstration. *International Journal of Social Robotics*, 4:1–13, June 2012.

M. Vondrak, L. Sigal, J. Hodgins, and O. Jenkins. Video-based 3d motion capture through biped control. *ACM Transactions on Graphics (TOG) (Proceedings of ACM SIGGRAPH)*, 31(4), 2012.

2009 J. Butterfield, O. C. Jenkins, D. Sobel, and J. Schwertfeger. Modeling aspects of Theory of Mind with Markov Random Fields. *International Journal of Social Robotics*, 1(1):41–51, Jan 2009.

2008 O. C. Jenkins. Sparse control for high-DOF assistive robots. *Intelligent Service Robotics*, 1(2):123–134, Apr 2008.

M. Nicolescu, O. Jenkins, A. Olenderski, and E. Fritzinger. Learning behavior fusion from demonstration. *Interaction Studies*, 9(2):319–352, Jun 2008.

2007 O. Jenkins, G. Gonzalez, and M. Loper. Interactive human pose and action recognition using dynamical motion primitives. *International Journal of Humanoid Robotics*, 4(2):365–385, Jun 2007.

2006 D. H. Grollman, O. C. Jenkins, and F. Wood. Discovering natural kinds of robot sensory experiences in unstructured environments. *Journal of Field Robotics*, 23(11-12):1077–1089, 2006.

M. Katzourin, D. Ignatoff, L. Quirk, J. J. LaViola, and O. C. Jenkins. Swordplay: Innovating game development through VR. *IEEE Comput. Graph. Appl.*, 26(6):15–19, 2006.

2004 O. C. Jenkins and M. J. Matarić. Performance-derived behavior vocabularies: Data-driven acqusition of skills from motion. *International Journal of Humanoid Robotics*, 1(2):237–288, Jun 2004.

2002 A. Fod, M. Matarić, and O. Jenkins. Automated derivation of primitives for movement classification. *Autonomous Robots*, 12(1):39–54, Jan 2002.

Quadrennial Papers

2020 H. Christensen, M. Gini, O. C. Jenkins, and H. Yanco. Robotics enabling the workforce. *arXiv preprint arXiv:2012.09309*, 2020.

O. C. Jenkins, D. Lopresti, and M. Mitchell. Next wave artificial intelligence: Robust, explainable, adaptable, ethical, and accountable. *arXiv preprint arXiv:2012.06058*, 2020.

Edited Works

2015 J. J. LaViola and O. C. Jenkins. Natural user interfaces for adjustable autonomy in robot control. *IEEE Computer Graphics and Applications*, 2015.

2010 J. Morimoto, O. Jenkins, and M. Toussaint. Robot learning in practice [From the Guest Editors]. *IEEE Robotics and Automation Magazine*, 17(2):17–18, June 2010.

Magazine Articles

2012 B. Alexander, K. Hsiao, O. C. Jenkins, J. Lee, B. Suay, and R. Toris. Robot Web Tools [ROS topics]. *IEEE Robotics and Automation Magazine*, 19(4):20–23, 2012.

2011 M. Anderson, O. C. Jenkins, and S. Osentoski. Recasting robotics challenges as experiments. *IEEE Robotics and Automation Magazine*, 18(2):10–11, Jun 2011.

2009 M. Anderson, O. Jenkins, and P. Oh. The 17th annual AAAI robot exhibition and manipulation and mobility workshop. *AI Magazine*, 30(1):95–102, 2009.

Y. Kim, P. Oh, and O. Jenkins. The AAAI 2008 robotics and creativity workshop. *AI Magazine*, 30(1):103–107, 2009.

2006 E. Leland, O. C. Jenkins, and K. Bradford. Robosapien localization and control. *Circuit Cellar Magazine*, 188, Mar 2006. Honorable Mention, Freescale Semiconductor Zigbee Wireless Design Challenge.

Editorials

2020 O. Jenkins. Before we put $100 billion into ai. Venture Beat opinion editorial: `https://venturebeat.com/ai/before-we-put-100-billion-into-ai/`, Aug 2020.

O. C. Jenkins and S. Šabanović. Understanding the ACM THRI review process. *ACM Transactions on Human-Robot Interaction (THRI)*, 7(3):18, 2018.

2018 O. C. Jenkins and S. Šabanović. Understanding the ACM THRI review process. *ACM Transactions on Human-Robot Interaction (THRI)*, 7(3):18, 2018.

S. Sabanovic and O. C. Jenkins. ACM transactions on human-robot interaction: A welcome from the Editors-in-Chief. *ACM Transactions on Human-Robot Interaction*, 7(1):1, 2018.

2017 O. C. Jenkins and S. Sabanovic. Editorial introduction: impact, sustainability, and inclusion for JHRI. *ACM Transactions on Human-Robot Interaction*, 6(1):1–3, 2018.

2013 O. Jenkins and A. Peseri. Automation, not domination: How robots will take over our world. Footnote1 opinion editorial: `http://footnote1.com/automation-not-domination-how-robots-will-take-over-our-world/`, Dec 2013.

Patents

C. V. Jones, O. C. Jenkins, M. M. Loper, *System and Method for Cooperative Remote Vehicle Behavior*, U.S. Patent 8577126, Nov. 5, 2013.

Refereed Conference Papers

2024 P. Gaskell, J. Pavlasek, T. Gao, A. Narula, S. Lewis, and O. C. Jenkins. Mbot: A modular ecosystem for scalable robotics education. In *2024 IEEE International Conference on Robotics and Automation (ICRA)*, pages 18294–18300. IEEE, 2024.

2023 J. A. Berry, E. A. Olson, A. Gilbert, and O. C. Jenkins. A case of identity: Enacting robot identity with belief propagation for decentralized multi-agent task allocation. In *2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*, pages 2373–2379. IEEE, 2023.

E. A. Olson, J. Pavlasek, J. A. Berry, and O. C. Jenkins. Counter-hypothetical particle filters for single object pose tracking. In *2023 IEEE International Conference on Robotics and Automation (ICRA)*, pages 3853–3859. IEEE, 2023.

E. Sheetz, M. Shannon, A. Ingerman, C. Kisailus, S. Azimi, and O. C. Jenkins. Composable semantic frames for grounding language in robot control primitives. In *International Conference on Robotics and Automation (ICRA) 2023*, 2023.

2022 A. Adu-Bredu, N. Devraj, and O. C. Jenkins. Optimal constrained task planning as mixed integer programming. In *2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 12029–12036. IEEE, 2022.

X. Chen, H. Zhang, Z. Yu, S. Lewis, and O. C. Jenkins. Progresslabeller: Visual data stream annotation for training object-centric 3d perception. In *2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 13066–13073. IEEE, 2022.

X. Chen, H. Zhang, Z. Yu, A. Opipari, and O. Chadwicke Jenkins. Clearpose: Large-scale transparent object dataset and benchmark. In *European conference on computer vision*, pages 381–396. Springer Nature Switzerland Cham, 2022.

X. Chen, K. Zheng, Z. Zeng, C. Kisailus, S. Basu, J. Cooney, J. Pavlasek, and O. C. Jenkins. Manipulation-oriented object perception in clutter through affordance coordinate frames. In *2022 IEEE-RAS 21st International Conference on Humanoid Robots (Humanoids)*, pages 186–193. IEEE, 2022.

T. Cohn, N. Devraj, and O. C. Jenkins. Topologically-informed atlas learning. In *2022 International Conference on Robotics and Automation (ICRA)*, pages 3598–3604. IEEE, 2022.

S. Lewis, J. Pavlasek, and O. C. Jenkins. Narf22: Neural articulated radiance fields for configuration-aware rendering. In *2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 770–777. IEEE, 2022.

Y. Liu, A. Opipari, O. C. Jenkins, and R. I. Bahar. A reconfigurable hardware library for robot scene perception. In *Proceedings of the 41st IEEE/ACM International Conference on Computer-Aided Design*, pages 1–9, 2022.

E. Sheetz, X. Chen, Z. Zeng, K. Zheng, Q. Shi, and O. C. Jenkins. Composable causality in semantic robot programming. In *2022 International Conference on Robotics and Automation (ICRA)*, pages 1380–1386. IEEE, 2022.

K. Zheng, X. Chen, O. C. Jenkins, and X. Wang. Vlmbench: A compositional benchmark for vision-and-language manipulation. *Advances in Neural Information Processing Systems*, 35:665–678, 2022.

2021 A. Adu-Bredu, N. Devraj, P.-H. Lin, Z. Zeng, and O. C. Jenkins. Probabilistic inference in planning for partially observable long horizon problems. In *2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 3154–3161. IEEE, 2021.

Z. Ye, J. Y. Song, Z. Sui, S. Hart, J. Vilchis, W. S. Lasecki, and O. C. Jenkins. Human-in-the-loop pose estimation via shared autonomy. In *Proceedings of the 26th International Conference on Intelligent User Interfaces*, pages 387–391, 2021.

2020 J. Pavlasek, S. Lewis, K. Desingh, and O. C. Jenkins. Parts-based articulated object localization in clutter using belief propagation. *arXiv preprint arXiv:2008.02881*, 2020.

Z. Zeng, A. Röfer, and O. C. Jenkins. Semantic linking maps for active visual object search. In *IEEE International Conference on Robotics and Automation (ICRA)*, to appear, 2020.

2019 X. Chen, R. Chen, Z. Sui, Z. Ye, Y. Liu, I. Bahar, and O. C. Jenkins. Grip: Generative robust inference and perception for semantic robot manipulation in adversarial environments. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 3988–3995, 2019.

K. Desingh, S. Lu, A. Opipari, and O. C. Jenkins. Estimation of articulated objects using efficient nonparametric belief propagation. In *International Conference on Robotics and Automation (ICRA)*, pages 7221–7227, 2019.

K. French, S. Wu, T. Pan, Z. Zhou, and O. C. Jenkins. Learning behavior trees from demonstration. In *International Conference on Robotics and Automation (ICRA)*, pages 7791–7797, 2019.

Z. Zhou, T. Pan, S. Wu, H. Chang, and O. C. Jenkins. Glassloc: Plenoptic grasp pose detection in transparent clutter. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 4776–4783, 2019.

2018 S. R. Gouravajhala, J. Yim, K. Desingh, Y. Huang, O. C. Jenkins, and W. S. Lasecki. Eureca: Enhanced understanding of real environments via crowd assistance. In *AAAI Conference on Human Computation (HCOMP)*, pages 31–40, 2018.

Y. Liu, A. Costantini, R. Bahar, Z. Sui, Z. Ye, S. Lu, and O. C. Jenkins. Robust object estimation using generative-discriminative inference for secure robotics applications. In *Proceedings of the International Conference on Computer-Aided Design (ICCAD)*, pages 75:1–75:8. ACM, 2018.

M. Maghoumi, J. J. LaViola Jr., K. Desingh, and O. C. Jenkins. Gemsketch: Interactive image-guided geometry extraction from point clouds. In *International Conference on Robotics and Automation (ICRA)*, pages 2184–2191, 2018.

T. McMahon, O. C. Jenkins, and N. Amato. Affordance wayfields for task and motion planning. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 2955–2962, 2018.

Z. Zeng, Y. Zhou, O. C. Jenkins, and K. Desingh. Semantic mapping with simultaneous object detection and localization. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 7462–7469, 2018.

Z. Zeng, Z. Zhou, Z. Sui, and O. C. Jenkins. Semantic Robot Programming for goal-directed manipulation in cluttered scenes. In *International Conference on Robotics and Automation (ICRA)*, pages 7462–7469, 2018.

Z. Zhou, Z. Sui, and O. C. Jenkins. Plenoptic monte carlo object localization for robot grasping under layered translucency. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 1–8, 2018.

2017 Z. Sui, Z. Zhou, Z. Zeng, and O. C. Jenkins. SUM: Sequential scene understanding and manipulation. In *IEEE International Conference on Intelligent Robots and Systems (IROS)*, pages 3281–3288, 2017.

2016 K. Desingh, O. C. Jenkins, L. Reveret, and Z. Sui. Physically plausible scene estimation for manipulation in clutter. In *IEEE International Conference on Humanoid Robots (Humanoids)*, 2016.

2015 M. J. Buller, A. P. Welles, M. Stevens, J. Leger, A. Gribok, O. C. Jenkins, K. E. Friedl, and W. Rumpler. Automated guidance from physiological sensing to reduce thermal-work strain levels on a novel task. In *Wearable and Implantable Body Sensor Networks (BSN), 2015 IEEE 12th International Conference on*, pages 1–6. IEEE, 2015.

Z. Sui, O. C. Jenkins, and K. Desingh. Axiomatic particle filtering for goal-directed robotic manipulation. In *IEEE Intelligent Robots and Systems (IROS)*, pages 4429–4436, 2015.

R. Toris, J. Kammerl, D. Lu, O. C. Jenkins, S. Osentoski, M. Wills, and S. Chernova. Robot Web Tools: Efficient messaging for cloud robotics. In *IEEE Intelligent Robots and Systems (IROS)*, pages 4530–4537, 2015.

L. Xiang, Z. Ren, M. Ni, and O. C. Jenkins. Robust graph slam in dynamic environments. In *IEEE Intelligent Robots and Systems (IROS)*, pages 2543–2549, 2015.

2013 M. J. Buller, E. Sodomka, W. J. Tharion, C. Clements, R. W. Hoyt, and O. C. Jenkins. Policies to optimize work performance and thermal safety in exercising humans. In *Innovative Applications of Artificial Intelligence (IAAI)*, 2013.

2012 B. Pitzer, S. Osentoski, G. Jay, C. Crick, and O. C. Jenkins. PR2 remote lab: an environment for remote development and experimentation. In *International Conference on Robotics and Automation (ICRA)*, pages 3200–3205, Minneapolis, MN, USA, May 2012.

B. Thomas and O. C. Jenkins. Roboframenet: Verb-centric semantics for actions in robot middleware. In *International Conference on Robotics and Automation (ICRA)*, pages 4750–4755, Minneapolis, MN, USA, May 2012.

2011 M. Buller, J. Castellani, W. Roberts, R. Hoyt, and O. C. Jenkins. Human thermoregulatory system state estimation using non-invasive physiological sensors. In *33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pages 3290–3293, Barcelona, Spain, August 2011.

C. Crick, S. Osentoski, G. Jay, and O. Jenkins. Human and robot perception in large-scale learning from demonstration. In *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, 2011.

M. Marge, A. Powers, J. Brookshire, G. T. Jay, O. C. Jenkins, and C. Geyer. Comparing heads-up, hands-free operation of ground robots to teleoperation. In *Robotics: Science and Systems (RSS)*, Los Angeles, CA, USA, June 2011.

S. Osentoski, G. Jay, C. Crick, B. Pitzer, C. DuHadway, and O. Jenkins. Robots as web services: Reproducible experimentation and application development using rosjs. In *International Conference on Robotics and Automation (ICRA)*, 2011.

2010 M. Buller, W. Tharion, R. Hoyt, and O. Jenkins. Estimation of human internal temperature from wearable physiological sensors. In *Innovative Applications in Artificial Intelligence (IAAI)*, Atlanta, GA, 2010.

M. Buller, A. Welles, O.Jenkins, and R. Hoyt. Extreme health sensing: the challenges, technologies, and strategies for active health sustainment of military personnel during training and combat missions. In *SPIE Sensors, and Command, Control, Communications, and Intelligence (C3I) Technologies for Homeland Security and Homeland Defense IX (Conference 7666)*, Orlando, FL, 2010.

J. Butterfield, S. Osentoski, G. Jay, and O. Jenkins. Learning from demonstration using a multi-valued function regressor for time-series data. In *IEEE International Conference on Humanoid Robots (Humanoids)*, pages 328–333, 2010.

D. H. Grollman and O. C. Jenkins. Incremental learning of subtasks from unsegmented demonstration. In *International Conference on Intelligent Robots and Systems (IROS)*, pages 261–266, Taipei, Taiwan, Oct 2010.

2009 M. Loper, N. Koenig, S. Chernova, O. Jenkins, and C. Jones. Mobile human-robot teaming with environmental tolerance. In *Human-Robot Interaction (HRI)*, pages 157–164, San Diego, CA, USA, Mar 2009.

A. Steinfeld, O. Jenkins, and B. Scassellati. The Oz of Wizard: Simulating the human for interaction research. In *Human-Robot Interaction (HRI)*, pages 101–108, San Diego, CA, USA, Mar 2009.

2008 J. Butterfield, B. Gerkey, and O. Jenkins. Multi-robot Markov Random Fields. In *Autonomous Agents and Multi Agent Systems (AAMAS)*, pages 1211–1214, Estoril, Portugal, May 2008.

D. H. Grollman and O. C. Jenkins. Sparse incremental learning for interactive robot control policy estimation. In *International Conference on Robotics and Automation (ICRA)*, pages 3315–3320, Pasadena, CA, USA, May 2008.

O. C. Jenkins. Markov Random Fields models for multi-robot teams in cyber-physical systems (4 pages). In *International Conference on Intelligent Robots and Systems (IROS), Special Session on Cyber Physical Systems*, Nice, France, Sep 2008.

A. Tsoli and O. C. Jenkins. Neighborhood denoising for learning high-dimensional grasping manifolds. In *International Conference on Intelligent Robots and Systems (IROS)*, pages 3680–3685, Nice, France, Sep 2008.

M. Vondrak, L. Sigal, and O. Jenkins. Physical simulation for probabilistic motion tracking. In *Computer Vision and Pattern Recognition (CVPR)*, pages 1–8, Anchorage, AK, USA, Jun 2008.

2007 D. Grollman and O. Jenkins. Dogged learning for robots. In *International Conference on Robotics and Automation (ICRA)*, pages 2483–2488, Rome, Italy, Apr 2007.

D. Grollman and O. Jenkins. Learning elements of robot soccer from demonstration. In *International Conference on Development and Learning (ICDL)*, pages 276–281, London, England, Jul 2007.

O. Jenkins, G. González, and M. Loper. Tracking human motion and actions for interactive robots. In *Human-Robot Interaction (HRI)*, pages 365–372, Arlington, VA, USA, Mar 2007.

M. Nicolescu, O. Jenkins, and A. Stanhope. Fusing robot behaviors for human-level tasks. In *International Conference on Development and Learning (ICDL)*, pages 76–81, London, England, Jul 2007.

J. Schwertfeger and O. Jenkins. Multi-robot belief propagation for distributed robot allocation. In *International Conference on Development and Learning (ICDL)*, pages 193–198, London, England, Jul 2007.

2006 O. Jenkins, R. Bodenheimer, and R. Peters. Manipulation manifolds: Explorations into uncovering manifolds in sensory-motor spaces (8 pages). In *International Conference on Development and Learning (ICDL)*, Bloomington, IN, USA, May-Jun 2006.

O. C. Jenkins. 2D subspaces for sparse control of high-DOF robots. In *Intl. Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pages 2722–2725, New York, NY, USA, Aug-Sep 2006.

R. Peters, O. Jenkins, and R. Bodenheimer. Sensory-motor manifold structure induced by task outcome: Experiments with Robonaut. In *IEEE International Conference on Humanoid Robotics (Humanoids)*, pages 484–489, Genoa, Italy, Dec 2006.

2005 R. A. Peters and O. C. Jenkins. Uncovering manifold structures in Robonaut's sensory-data state space. In *IEEE International Conference on Humanoid Robotics (Humanoids)*, pages 369–374, Tsukuba, Japan, Dec 2005.

2004 W. Bluethmann, R. Ambrose, M. Diftler, E. Huber, A. Fagg, M. Rosenstein, R. Platt, R. Grupen, C. Breazeal, A. Brooks, A. Lockerd, R. A. Peters, O. C. Jenkins, M. J. Matarić, and M. Bugajska. Building an autonomous humanoid tool user. In *IEEE International Conference on Humanoid Robots (Humanoids)*, pages 402–421, Nov 2004.

E. Drumwright, O. C. Jenkins, and M. J. Matarić. Exemplar-based primitives for humanoid movement classification and control. In *IEEE International Conference on Robotics and Automation (ICRA)*, pages 140–145, New Orleans, LA, USA, Apr 2004.

O. C. Jenkins and M. J. Matarić. A spatio-temporal extension to Isomap nonlinear dimension reduction. In *The International Conference on Machine Learning (ICML)*, pages 441–448, Banff, Alberta, Canada, Jul 2004.

N. Miller, O. C. Jenkins, M. Kallmann, and M. J. Matarić. Motion capture from inertial sensing for untethered humanoid teleoperation. In *IEEE International Conference on Humanoid Robots (Humanoids)*, pages 547–565, Nov 2004.

2003 C.-W. Chu, O. C. Jenkins, and M. J. Matarić. Markerless kinematic model and motion capture from volume sequences. In *IEEE Computer Vision and Pattern Recognition (CVPR)*, pages II: 475–482, Madison, Wisconsin, USA, Jun 2003.

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2002 O. C. Jenkins and M. J. Matarić. Deriving action and behavior primitives from human motion data. In *IEEE Intelligent Robots and Systems (IROS)*, volume 3, pages 2551–2556, Lausanne, Switzerland, Oct 2002.

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Refereed Conference Abstracts and Videos

2024 S. Lewis, T. Gao, and O. C. Jenkins. Narf24: Estimating articulated object structure for implicit rendering. *ICRA@40, arXiv preprint arXiv:2409.09829*, 2024.

2014 B. Argall, S. Chernova, K. K. Hauser, and O. C. Jenkins. Workshop on algorithmic human-robot interaction. In *ACM/IEEE International Conference on Human-Robot Interaction, HRI 2013, Tokyo, Japan, March 3-6, 2013*, page 503, 2014.

2008 D. Byers, M. Lapping-Carr, J. Kumar, T. Hinkle, D. Grollman, and O. Jenkins. Brown Robotics: Game-based learning. In *HRI 2008 Video Program*, Amsterdam, Netherlands, Mar 2008.

D. Byers, M. Lapping-Carr, J. Kumar, T. Hinkle, D. Grollman, and O. Jenkins. Game-based robot learning. In *AAAI 2008 Video Program (Best Student Video)*, Chicago, IL, USA, Jul 2008.

N. Koenig, S. Chernova, C. Jones, M. Loper, and O. Jenkins. Hands-free human-robot interaction. In *AAAI 2008 Video Program*, Chicago, IL, USA, Jul 2008.

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2007 M. Kostandov, J. Schwertfeger, O. Jenkins, R. Jianu, M. Buller, D. Hartmann, M. Loper, A. Tsoli, M. Vondrak, and W. Zhou. Robot gaming and learning using augmented reality. In *ACM SIGGRAPH Technical Posters*, San Diego, CA, USA, Aug 2007.

2006 S.-P. Kim, J. Simeral, O. Jenkins, J. Donoghue, and M. Black. Finding directional movement representations in motor cortical neural populations using nonlinear manifold learning. In *World Congress on Medical Physics and Biomedical Engineering 2006*, Seoul, Korea, Aug 2006.

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Refereed Workshop and Symposia Papers

2024 L. Stirling, J. Montgomery, M. Draelos, C. Mavrogiannis, L. P. Robert Jr, and O. C. Jenkins. Rob 204: Introduction to human-robot systems at the university of michigan, ann arbor. *arXiv preprint arXiv:2405.15023*, 2024.

E. Tong, A. Opipari, S. R. Lewis, Z. Zeng, and O. C. Jenkins. Oval-prompt: Open-vocabulary affordance localization for robot manipulation through llm affordance-grounding. In *First Workshop on Vision-Language Models for Navigation and Manipulation at ICRA 2024*, 2024.

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2022 S. Lewis, B. Aldeeb, A. Opipari, E. Olson, C. Kisailus, and O. C. Jenkins. Nerf-frenemy: Co-opting adversarial learning for autonomy-directed co-design. In *RSS Workshop-Implicit Representations for Robotic Manipulation*, 2022.

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Z. Zeng, A. Röfer, S. Lu, and O. C. Jenkins. Generalized object permanence for object retrieval through semantic linking maps. In *IEEE ICRA 2019 Workshop on High Accuracy Mobile Manipulation in Challenging Environments*, 2019.

2018 K. Desingh, A. Opipari, and O. C. Jenkins. Analysis of goal-directed manipulation in clutter using scene graph belief propagation. 2018.

2017 Z. Zeng, Z. Zhou, Z. Sui, and O. C. Jenkins. Robot programming by goal scene demonstration. 2017.

2016 K. Desingh, M. Maghoumi, O. C. Jenkins, J. J. LaViola, and L. Reveret. Object manipulation in cluttered scenes informed by physics and sketching. In *Robotics:Science and Systems 2016 Workshop on Geometry and Beyond - Representations, Physics, and Scene Understanding for Robotics*, 2016.

Z. Sui, Z. Zhou, and O. C. Jenkins. Goal-directed manipulation of objects in contact-based clutter through probabilistic pose estimation. In *IJCAI 2016 Workshop on Workshop on Autonomous Mobile Service Robots*, 2016.

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2014 J. K. Lee and O. C. Jenkins. Goal-based teleoperation for robot manipulation. In *AAAI Fall Symposium on Artificial Intelligence and Human-Robot Interaction*, Washington DC, USA, Nov 2014.

J. G. Raiti, O. C. Jenkins, and A. Lux-Fawzi. Empower: Enhanced movement and physical-augmentation through web-enabled robots. In *AAAI Fall Symposium on Artificial Intelligence and Human-Robot Interaction*, Washington DC, USA, Nov 2014.

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2008 J. Butterfield, K. Dantu, B. Gerkey, O. Jenkins, and G. Sukhatme. Autonomous biconnected networks of mobile robots. In *Wireless Multihop Communications in Networked Robotics*, pages 640–646, Berlin, Germany, April 2008.

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N. Koenig, S. Chernova, C. Jones, M. Loper, and O. Jenkins. Hands-free interaction for human-robot teams. In *ICRA 2008 Workshop on Social interaction with intelligent indoor robots*, Pasadena, CA, USA, May 2008.

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2007 B. Dickinson, O. Jenkins, M. Moseley, D. Bloom, and D. Hartmann. Roomba Pac-Man: Teaching autonomous robotics through embodied gaming. In *AAAI Symposium on Robot and Robot Venues: Resources for AI Education*, pages 35–39, Palo Alto, CA, USA, Mar 2007.

D. H. Grollman and O. C. Jenkins. Learning robot soccer from demonstration: Ball grasping. In *Robotics: Science and Systems - Robot Manipulation: Sensing and Adapting to the Real World*, Jun 2007.

D. H. Grollman and O. C. Jenkins. (Machine) learning robot control policies. In *NIPS 2007 Workshop on Robotics challenges for Machine Learning*, Whistler, BC, Canada, Dec 2007.

A. Tsoli and O. Jenkins. 2D subspaces for user-driven robot grasping. In *Robotics: Science and Systems - Robot Manipulation: Sensing and Adapting to the Real World*, Jun 2007.

A. Tsoli and O. Jenkins. Robot grasping for prosthetic applications. In *International Symposium of Robotics Research (ISRR)*, Nov 2007.

2006 E. Chang and O. Jenkins. Sketching articulation and pose for facial animation. In *ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA 2006)*, Vienna, Austria, Sep 2006.

O. Jenkins, G. González, and M. Loper. Learning dynamical motion vocabularies for kinematic tracking and activity recognition. In *CVPR 2006 Workshop on Vision for Human-Computer Interaction*, New York, NY, USA, Jun 2006.

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M. Nicolescu, O. C. Jenkins, and A. Olenderski. Behavior fusion estimation for robot learning from demonstration. In *IEEE Workshop on Distributed Intelligent Systems (DIS'06)*, pages 31–36, Prague, Czech Republic, 2006.

P. Wrotek, O. Jenkins, and M. McGuire. Dynamo: Dynamic data-driven character control with adjustable balance. In *ACM SIGGRAPH Video Game Symposium*, Boston, MA, USA, Jul 2006.

2005 D. H. Grollman, O. C. Jenkins, and F. Wood. Discovering natural kinds of robot sensory experiences in unstructured environments. In *NIPS 2005 Workshop on Machine Learning Based Robotics in Unstructured Environments*, Whistler, BC, Canada, Dec 2005.

O. C. Jenkins. Data-driven motion modeling from kinematic time-series. In *NIPS 2005 Workshop on Activity Recognition and Discovery*, Whistler, BC, Canada, Dec 2005.

2004 O. C. Jenkins, M. N. Nicolescu, and M. J. Matarić. Autonomy and supervision for robot skills and tasks learned from demonstration. In *AAAI-04 Workshop on Supervisory Control of Learning and Adaptive Systems*, 2004.

2001 O. C. Jenkins and M. J. Matarić. Primitives and behavior-based architectures for interactive entertainment. In *AAAI Spring Symposium on AI and Interactive Entertainment*, Stanford, CA, USA, Mar 2001.

2000 M. J. Matarić, O. C. Jenkins, A. Fod, and V. B. Zordan. Control and imitation in humanoids. In *AAAI Fall Symposium on Simulating Human Agents*, North Falmouth, MA, USA, Nov 2000.

Technical Pre-prints and Reports

2018 K. Desingh, A. Opipari, and O. C. Jenkins. Pull message passing for nonparametric belief propagation. *arXiv preprint arXiv:1807.10487*, 2018.

Z. Sui, Z. Ye, and O. C. Jenkins. Never mind the bounding boxes, here's the SAND filters. *arXiv preprint arXiv:1808.04969*, 2018.

2017 Z. Sui, Z. Zhou, Z. Zeng, and O. C. Jenkins. SUM: Sequential scene understanding and manipulation. *arXiv preprint arXiv:1703.07491*, 2017.

Z. Zeng, Z. Zhou, Z. Sui, and O. C. Jenkins. Scene-level programming by demonstration. *arXiv preprint arXiv:1704.01189*, 2017.

2005 D. H. Grollman, O. C. Jenkins, and F. Wood. Extensible data-driven classification of robot sensor data. Technical Report Technical Report, cs05-11, Brown Computer Science Department, Jul 2005.

M. M. Loper and O. C. Jenkins. Real-time silhouette intersection by maintaining the distribution of occupancy. Technical Report Technical Report, cs05-12, Brown Computer Science Department, Jul 2005.

2004 O. C. Jenkins, C.-W. Chu, and M. J. Matarić. Nonlinear spherical shells for approximate principal curve skeletonization. Technical Report Technical Report, CRES-04-004, USC Center for Robotics and Embedded Systems, Feb 2004.

N. Miller, O. C. Jenkins, M. Kallmann, and M. J. Matarić. Motion capture from inertial sensing for untethered humanoid teleoperation. Technical Report Technical Report, CRES-04-010, USC Center for Robotics and Embedded Systems, Jun 2004.

2003 O. C. Jenkins. Relative localization from pairwise distance relationships using kernel pca. Technical Report CRES-03-010, Center for Robotics and Embedded Systems, University of Southern California, Apr 2003.

2002 C.-W. Chu, O. C. Jenkins, and M. J. Matarić. Converting sequences of human volumes into kinematic motion. Technical Report CRES-02-003, Center for Robotics and Embedded Systems, University of Southern California, Sep 2002.

O. C. Jenkins and M. J. Matarić. Modularization of human motion into actions and behaviors. Technical Report CRES-02-002, Center for Robotics and Embedded Systems, University of Southern California, Sep 2002.

2000 O. C. Jenkins, M. J. Matarić, and S. Weber. Primitive-based movement classification for humanoid imitation. Technical Report IRIS-00-385, Institute for Robotics and Intelligent Systems, University of Southern California, 2000.

Invited Presentations

Distinguished Lectures

"*AI - Pick Two: Fast, Cheap, or Good?*"

at Patten Lecture, William T. Patten Foundation, Indiana University, Bloomington, IN, USA, October 31, 2024

"*Defining the Discipline of Robotics for Excellence and Equity through Humanoid Robot[ic]s*"

at Patten Lecture, William T. Patten Foundation, Indiana University, Bloomington, IN, USA, October 29, 2024

"*Semantic Robot Programming and the Irresistible Tastiness of Seed Corn*"

at CISE Distinguished Lecture, National Science Foundation, virtual, March 3, 2022

"*Robotics: Making the World a Better Place through Minimal Message-oriented Transport Layers*"

at Department of Computer Science, University of Toronto, virtual, January 13, 2021

"*Perception of People and Scenes for Robot Learning from Demonstration*"

at Intel Corporation, Portland, OR, USA, September 27, 2017

at Columbia University, New York, NY, USA, November 16, 2016

Keynote and Plenary Talks

"*Nonparametric Belief Propagation: Differentiable, Diagnosable, Decisive*"

at NurRL-RMW Workshop, CoRL 2023, Atlanta, GA, USA, November 6, 2023

at ROPEM Workshop, IROS 2023, Detroit, MI, USA, October 5, 2023

"*Semantic Robot Programming and Defining the Discipline of Robotics*"

at Workshop on Teaching and Training Students for Cognitive Robotics, IROS 2023, Detroit, MI, USA, October 1, 2023

Robotics Seminar, Oregon State University, Corvallis, OR, USA, February 24, 2023

at Workshop on User-Centric Artificial Intelligence for Assistance in At-Home Tasks, AAAI 2022, Washington, DC, USA, October 1, 2023

"*Semantic Robot Programming and the Irresistible Tastiness of Seed Corn*"

at IJCAI 2021, virtual, August 25, 2021

"*Semantic Robot Programming and the Unreasonable Effectivness of Belief*"

at 4th Robot Learning Workshop: Self-Supervised and Lifelong Learning, NeurIPS 2021, December 14, 2021

"*That Ainť Right: AI Mistakes and Black Lives*"

at Black in AI, New Orleans, LA, USA, November 30, 2022

"*Robotics: Making the World a Better Place through Minimal Message-oriented Transport Layers*"

at Good Systems Symposium, University of Texas at Austin, Austin, TX, USA, April 3, 2023

at ACM Motion, Interaction, and Games Conference, virtual, October 17, 2020

at Advances in Cognitive Systems, virtual, August 12, 2020

at NASA Swarmathon Workshop, Kennedy Space Center, Cape Canaveral, FL, USA, June 11, 2019

at Broadening Participation in Data Mining (BPDM 2019), Howard University, Washington, DC, USA, February 2, 2019

at Robotics: Science and Systems (RSS 2018), Pittsburgh, PA, USA, June 26, 2018

"*Perception of People and Scenes for Robot Learning from Demonstration*"

at Teach for America Catalyst 2019, University of Memphis, Memphis, TN, USA, March 1, 2019

at 2018 NewSchools Venture Summit, Burlingame, CA, USA, May 9, 2018

at 2017 International Joint Conference on Neural Networks (IJCNN 2017), Anchorage, AK, USA, May 18, 2017

"*Three Things to Remember from the 10 Fac Commandments*"

at 2024 CMD-IT Academic Careers Workshop, Chicago, IL, USA, June 7, 2024

at 2018 Notre Dame Future Faculty Workshop, Notre Dame, IN, USA, April 20, 2018

at 2016 NextProf Fall Engineering Workshop, Ann Arbor, MI, USA, September 29, 2016

"*Goal-directed Robot Manipulation via Axiomatic Scene Estimation*"

at 2016 Conference for African American Researchers in the Mathematical Sciences (CAARMS), Princeton, NJ, USA, June 16, 2016

"*Robotics to Reach Out and Change the World*"

at 2015 Conference for African American Researchers in the Mathematical Sciences (CAARMS), Providence, RI, USA, June 26, 2015

at 2015 Lifelong Learning Collaborative Convocation Address, Providence, RI, USA, February 26, 2015

at 2015 Richard Tapia Celebration of Diversity in Computing, Boston, MA, USA, February 19, 2015

at 2014 High Impact Technology Exchange Conference, Chicago, IL, USA, July 23, 2014

"*Cool Jobs in Robotics*"

at 2014 World Science Festival, New York, NY, USA, June 1, 2014 (with M. Jenkins)

"*rosbridge: Towards a World Wide Web for Robotics*"

at 2013 RoboCup Symposium, Eindhoven, Netherlands, July 1, 2013

"*From Video Games to Robots: My Path into Computer Science*"

at 2012 ARTSI Student Research Conference, Norfolk State University, Norfolk, VA, USA, March 23, 2012

Invited Talks

"*Distributed Teaching Collaboratives: Open-source Course Collaboration to Build Pathways into Robotics and*

at Berea College, Berea, KY, USA, April 19, 2024

at Toyota Research Institute Multi-University Workshop, Palo Alto, CA, USA, April 3, 2024

at Sloan Foundation, New York, NY, USA, April 3, 2024

at Amazon Consumer Robotics Workshop, Sunnyvale, CA, USA, March 27, 2024

at Howard CS Next 30, Howard University, Washington, DC, USA, May 9, 2023

"*Semantic Robot Programming and Defining the Discipline of Robotics*"

Robotics Seminar, Oregon State University, Corvallis, OR, USA, February 24, 2023

"*That Aint́ Right: AI Mistakes and Black Lives*"

at Black in AI, New Orleans, LA, USA, November 30, 2022

at BETR Seminar, Berea College, virtual, January 31, 2022

at Ford AV Pass the Mic Seminar, Ford Motor Company, virtual, May 25, 2021

at Robotics Today Seminar, virtual, March 12, 2021

at Michigan Engineering DEI Lecture Series, University of Michigan, virtual, February 17, 2021

at Computer Science Department, Harvard University, virtual, October 29, 2020

at TransAIR Conference, virtual, September 28, 2020

at Equity and Justice Seminar, Computer Science Department, University of Illinois, September 15, 2021

at BlackInComputing.org Webinar, virtual, July 21, 2020

"*Robotics: Making the World a Better Place through Minimal Message-oriented Transport Layers*"

at University California at San Diego, virtual, April 9, 2021

at University of Rhode Island, virtual, April 9, 2021

at University of Maryland, virtual, March 3, 2021

at University of Washington, virtual, March 3, 2021

at Johns Hopkins University, virtual, March 3, 2021

at University of Southern California, virtual, January 19, 2021

at Northwestern University, virtual, January 11, 2021

at Embodied Intelligence Seminar, Massachusetts Institute of Technology, virtual, December 2, 2020

at GRASP Lab Seminar, University of Pennsylvania, virtual, October 17, 2020

at Pomona College, virtual, October 1, 2020

at MLK Lecture Series, Tau Beta Pi, University of Michigan, Ann Arbor, MI, USA, February 17, 2020

"*Semantic Robot Programming... and Making the World a Better Place*"

at University of Southern California, Los Angeles, CA, USA, November 27, 2018

"*Perception of People and Scenes for Robot Learning from Demonstration*"

at Control Seminar, University of Michigan, Ann Arbor, MI, USA, November 18, 2016

"*Robotics to Reach Out and Change the World*"

at Medgar Evers College, Brooklyn, NY, USA, February 6, 2017

at Alma College, Alma, MI, USA, December 1, 2016

at Lewis and Clark College, Portland, OR, USA, October 11, 2016

"*Goal-Directed Manipulation through Axiomatic Scene Estimation*"

at Robotics: Science and Systems Workshop on Model Learning for Human-Robot Communication, Ann Arbor, MI, USA, June 19, 2016

"*What is Scientific about the Robots for Humanity?*"

at Robotics: Science and Systems Workshop on Socially and Physically Assistive Robotics for Humanity, Ann Arbor, MI, USA, June 18, 2016

"*Perception of People and Scenes for Robot Learning from Demonstration*"

at CSE Seminar, Texas A&M University, College Station, TX, USA, April 6, 2016

at CSE Seminar, University of Michigan, Ann Arbor, MI, USA, April 2, 2015

"*Meet the Robots for Humanity*"

at TEDxMidAtlantic 2013, Washington, D.C., USA, October 26, 2013. (with H. Evans)

"*Reach Out and Change the World: Robots Among Us*"

at National Geographic Explorers Symposium, National Geographic Society, Washington, D.C., USA, June, 8, 2013. (with R. Toris)

"*rosbridge: Towards a World Wide Web for Robotics*"

at Rutgers University, Piscataway, NJ, USA, September 22, 2014

at Graduate School of Oceanography, University of Rhode Island, Narragansett, RI, USA, September 26, 2013

at Intelligent Robotics Group, NASA Ames, Moffett Field, CA, USA, January 29, 2013

at NASA-DRL Distinguished Lecture Series, Johnson Space Center, Houston, TX, USA, April 20, 2012

at GRASP Seminar, University of Pennsylvania, Philadelphia, PA, USA, April 13, 2012

"*Physically Plausible Human Motion Understanding for Human-Robot Teams*"

at School of Interactive Computing, Georgia Institute of Technology, Atlanta, GA, USA, February 6, 2012

at CSE Seminar, University of Michigan, Ann Arbor, MI, USA, January 25, 2012

at USC Futures of Robotics Sympoisum, University of Southern California, Los Angeles, CA, USA, December 7, 2012

at US-China Symposium on Human-Robot Interaction, Tsinghua University, Beijing, China, October 21, 2012

"*Robot Enabled Cloud: Robots as Web Services*" (also titled "*rosbridge: ROS for non-ROS users*")

at RoboBusiness Summit 2011, Boston, MA, USA, November 3, 2011

at AAAI Workshop on Plan, Activity, and Intent Recognition, San Francisco, CA, USA, August 7, 2011

at Robotics: Science and Systems Workshop on Human-Robot Interaction, University of Southern California, Los Angeles, CA, USA, July 1, 2011

at Robotics: Science and Systems Workshop Imitation Learning, University of Southern California, Los Angeles, CA, USA, June 27, 2011

at ARTSI Faculty Summit, University of Alabama, Toscaloosa, AL, USA, June, 20, 2011

at Computer Science Colloquium, Texas A&M University, College Station, TX, USA, April 20, 2011

at Seminar, Willow Garage, Menlo Park, CA, USA, April 16, 2010

at IAS Seminar, TU-Munich, Munich, Germany, March 11, 2011

"*Learning The Foundations for Humanoid Autonomy*"

at National Academy of Engineering Gilbreth Lecture, Washington, DC, USA, February 16, 2010

"*Can We Crowdsource Your Robot?*"

at RIM Seminar, Georgia Institute of Technology, Atlanta, GA, USA, September 21, 2012

at Computer Science Colloquium, George Washington University, Washington, DC, USA, November 10, 2010

at Robotics Engineering Seminar, Worcester Polytechnic Institute, Worcester, MA, USA, October 25, 2010

at Google, Mountain View, CA, USA, March 24, 2010

"*Challenges for Evaluation in Mobile Robotic Manipulation*"

at Robotics: Science and Systems Workshop on Mobile Manipulation in Human Environments, University of Washington, Seattle, WA, USA, June, 28, 2009

"*Beyond Pairwise Similarity Kernels: Will Learning Become The Path of Least Resistance?*"

at Robotics: Science and Systems Workshop on Bridging the gap between high-level discrete representations and low-level continuous behaviors, University of Washington, Seattle, WA, USA, June, 28, 2009

"*Robot Learning from Multivalued Demonstration*"

at Institute of Automatic Control Engineering, Department of Electrical Engineering and Information Technology, Technical University of Munich, Munich, Germany, October 10, 2008

at IROS Workshop: Robotics Challenges for Machine Learning II, Nice, France, September 22, 2008

"*Learning in Human-Robot Teams*" (also titled *Manifold Learning in Human-Robot Teams*)

at Computer Science Colloquium, Texas A&M University, College Station, TX, USA, April 21 2010

at Computer Science Colloquium, Rice University, Houston, TX, USA, April 20, 2010

at Computer Science Colloquium, Stevens Institute of Technology, Hoboken, NJ, USA, January 25, 2010

at Computer Science Colloquium, Yale University, New Haven, CT, USA, October 29, 2009

at IEEE Robotics and Automation Society Boston, Olin College, Needham, MA, USA, September 8, 2009

at Computer Science Colloquium, University of Southern California, Los Angeles, CA, USA, January 5, 2009

at Robotics Seminar Series, Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, Cambridge, MA, USA, December 2, 2008

at Robotics and Intelligent Machines Seminar, College of Computing, Georgia Institute of Technology, Atlanta, GA, USA, November 19, 2008

at Columbia Vision and Graphics Center Distinguished Lecture Series, Department of Computer Science, Columbia University, New York, NY, USA, November 13, 2008

at Computer Science Colloquium, School of Engineering and Applied Sciences, Harvard University, Cambridge, MA, USA, October 23, 2008

at Intelligent Autonomous Systems Group, Computer Science Department, Technical University of Munich, Garching, Germany, October 16, 2008

at Department of Robotic Systems, German Aerospace Center (DLR), Oberpfaffenhofen-Wessling, Germany, October 13, 2008

at CoTeSys International Workshop on Cognition for Technical Systems, Munich, Germany, October 6, 2008

at Forum for Artificial Intelligence, Department of Computer Science, University of Texas at Austin, Austin, TX, USA, September 11, 2008

at Computer Science Department, University of Minnesota, Minneapolis, MN, USA, September 8, 2008

at Willow Garage, Palo Alto, CA, USA, August 12, 2008

at Orthopaedic Research Seminar, Brown University Medical School, Providence, RI, USA, March 12, 2008

at Robotics Institute Seminar, Carnegie Mellon University, Pittsburgh, PA, USA, February 15, 2008

"*Brown University Robotics: A Review Worth 1,000,000 Words*"

at Center for Healthcare Robotics, Health Systems Institute, Atlanta, GA, USA, October 12, 2007

"*Innate and Adaptive Behavior in Lifelong Robot Learning*"

at Performance Metrics for Intelligent Systems Workshop, Gaithersburg, MD, USA, August 29, 2007

"*Multi-Robot Belief Propagation*"

at R:SS Workshop on Robotic Sensor Networks: Principles and Practice, Robotics:Science and Systems, Atlanta, GA, USA, June 30, 2007

"*Manifolds on the Brain*"

at NIPS Workshop on Novel Applications of Dimension Reduction, Neural Information Processing Systems, Whistler, BC, Canada, December 9, 2006

"*Dynamic Motion Capture with Adjustable Character Balance*"

at Interactive Media and Game Development Seminar, Computer Science Department, Worchester Polytechnic Institute, Worcheseter, MA, USA, November 30, 2006

at Intel Research, Santa Clara, CA, USA, August 12, 2006

"*Learning to Bridge the Human-Robot Divide*"

at Control, Instrumentation and Robotics Seminar, Mechanical Enginering Department, Masschusetts Institute of Technology, Cambridge, MA, USA, November 16, 2006

at GRASP Lab Seminar, University of Pennsylvania, Philadelphia, PA, USA, November 10, 2006

at R:SS Socially Assistive Robotics Workshop, Robotics: Science and Systems, Philadelphia, PA, USA, August 19, 2006

"*Learning the Foundations for Humanoid Autonomy*"

at Machine Vision Colloquium, Masschusetts Institute of Technology, Cambridge, MA, USA, February 13, 2006

"*Learning the Foundations for Humanoid Autonomy*"

at National Academies of Engineering Fifth Japan-America Frontiers of Engineering Symposium, San Jose, CA, USA, November 3, 2005

"*Robot Learning from Demonstration through the Capture and Analysis of Human Motion*"

at MOVI Research Group, INRIA Rhone-Alpes, Grenoble, France, April 12, 2006

at iRobot Corporation, Burlington, MA, USA, November 21, 2005

at Computer Science Colloquium, University of Massachusetts Lowell, Lowell, MA, USA, October 18, 2005

at Computer Science and Engineering Colloquium, University of Washington in St. Louis, St. Louis, MO, USA, October 7, 2005

at Robotics Group, University of Massachusetts Amherst, Amherst, MA, USA, September 30, 2005

"*Embodying Human Motion*"

at MOVI Research Group, INRIA Rhone-Alpes, Grenoble, France, June 15, 2005

"*Modular Predictors for Robot Control and Activity Classification*"

at Neurobotics Meeting, Lucca, Italy, October 11, 2004

"*Chalk Talk: Natural Motion Capture and Behavior Extraction*"

at Computer Science Department, Brown University, Providence, RI, March 1, 2004

"*Multidimensional Scaling Approaches to Analyzing and Capturing of Human Motion*"

at Computer Science Colloquium, Harvey Mudd College, Claremont, CA, February 24, 2004

at Electrical Engineering and Computer Science Department, Oregon State University, Corvallis, OR, February 9, 2004

at Electrical Engineering and Computer Science Department, Vanderbilt University, Nashville, TN, February 2, 2004

at Computer Science Department, University of Nevada-Reno, November 14, 2003

at Computer Science Department, Brown University, Providence, RI, November 12, 2003

at Computer Vision Group, California Institute of Technology, Pasadena, CA, October 28, 2003

"*Deriving Vocabularies of Motion for Autonomous Humanoid Agents from Natural Human Performance*"

at Electrical Engineering and Computer Science Department, Vanderbilt University, Nashville, TN, May 1, 2003

"*Deriving Behavior Vocabularies (for Humanoid Control and Imitation) from Human Motion Capture*"

at Artificial Intelligence Group Seminar, University of California at San Diego, La Jolla, CA, December 2, 2002

at Mathematics and Computer Science Department, Alma College, Alma, MI, October 14, 2002

at Pattern Recognition and Image Processing Seminar, Michigan State University, Lansing, MI, October 11, 2002

at Computer Science Colloquium, Harvey Mudd College, Claremont, CA, September 19, 2002

"*Humanoid Control and Activity Modeling Projects at the USC Robotics Research Lab*"

at the Thirteenth Annual Government Technology Conference, Austin, TX, February 15, 2002

"*Primitives-Based Control and Learning by Imitation*"

at Computer Vision Group, California Institute of Technology, Pasadena, CA, January 26, 2001

"*Primitives-based Imitation: The Model, Implementation, and Automated Derivation*"

Imitation and Learning Seminar, University of Southern California, Los Angeles, CA, October 30, 2000

"*Imitation Using Primitives*"

Mobile Robotic Competition and Exhibition Workshop at the Seventeenth National Conference on Artificial Intelligence (AAAI 2000), Austin, TX, August 3, 2000

Invited K-12 Talks

"*Careers in Robotics*"

at The Learning Community, Central Falls, RI, USA, March, 19, 2014

"*Robot Soccer and Video Games: Careers, Technology, and Fun*"

at The Paul Cuffee School, Providence, RI, USA, June, 6, 2006

at The Met Center High School, Providence, RI, USA, May, 15, 2006

at San Miguel Middle School, Providence, RI, USA, March, 8, 2006

"*Careers in Video Games and Digital Media*"

at Washington Prep High School, Los Angeles, CA, USA, June 8, 2002

Research Grants and Sponsored Projects

2024 Amazon, "Semantic and Dynamic Gaussian Splatting for Robust Dexterous Manipulation," $90.

Toyota Research Institute, $22K.

2022 Sloan Foundation, "Revolutionizing MSI-to-R1 Graduate Pathways through Distributed Teaching Collaboratives in Robotics" with Morehouse College, Berea College, and Howard University, PI: O. Jenkins, $500K, Dec 2022 - Nov 2025.

Ford Motor Company, "Semantic Perception for Taskable Programming of Robots by Demonstration," PI: O. Jenkins, $250K, Apr 2022 - Apr 2024.

JP Morgan Chase, "Semantic Frame Mapping for Building-wide Perception and Affordance Execution," $100K.

Amazon, "Community Resources for Distributed Teaching Collaboratives for Robotics and AI Undergraduate Courses," $180K.

Amazon, "Semantic Frame Mapping for Building-wide Perception and Affordance Execution," $100K.

Qualcomm, "Qualcomm Innovation Research," $100K.

Computing Research Association, "Computing Innovation Fellows 2021 Project," PI: O. Jenkins, $250K, Jan 2022 - Dec 2023.

2020 NASA, "FAME: Fast Affordance Manipulation Execution," $160, Aug 2020 - Jul 2024.

Completed Projects

2019 Magna International, Inc., PI: O. Jenkins, $309K, Mar 2019 - Feb 2020.

2018 Magna International, Inc., PI: O. Jenkins, $173K, Jun 2018 - Jan 2019.

NSF Award 1940652 "National Robotics Initiative (NRI) PI Meeting 2020 Technical Program Organization" (with E. Atkins), total $40K, Aug 2019 - Aug 2020.

2016 NSF NRI IIS-1638060 "NRI: Collaborative Research: Sketching Geometry and Physics Informed Inference for Mobile Robot Manipulation in Cluttered Scenes" PI: O. Jenkins (collaborative with J. LaViola), total $400K, Sept 2016 - Sept 2019.

2014 Brown University Research Seed Award "Robot Telepresence in Improved Nursing Home Organization," PI: O. Jenkins, total $80K, May 2014 - May 2015.

Brown University Research Seed Award "Enabling Autonomous Flight of Drones in Complex, Unpredictable Environments," PI: I. Bahar, total $80K, May 2014 - May 2015.

2013 NASA EPSCoR "Web-Scale Assisted Robot Teleoperation," PI: O. Jenkins, total $750K, Sept 2013 - Sep. 2016.

2011 ONR SBIR "Natural Interaction with Unmanned Ground Vehicles," PI: G. Taylor, Co-PI: O. Jenkins, $120K, Oct. 2011 - Sep. 2013.

2010 Army SBIR Award A10A-030-0110 "LIBERATION: Leader Informed Beacon Estimation for ReAl-Time, Intelligent, Onboard Navigation," PI: D. Kortenkamp, co-PI: O. Jenkins , total $100K, Sep. 2010 - Mar. 2011.

2009 NSF CAREER Award IIS-0844486, "CAREER: Robot Learning from Multi-valued Demonstration," PI: O. Jenkins, total $558K, Jun. 2009 - Jul. 2014.

AFOSR YIP Award, "Cover-To: Coordinating Robotic Networks through Belief Propagation," PI: O. Jenkins, total $300K, Jan. 2009 - Jan. 2012.

Alfred P. Sloan Research Fellowship, PI: O. Jenkins, total $50K, Apr. 2009 - Apr. 2012.

2008 ONR SBIR Phase II Award "Natural Human-Robot Interaction," PI: C.V. Jones, co-PI: O.C. Jenkins, total $750K, Oct. 2008 - Oct. 2010.

ONR PECASE Award N000140810910 "Tracking Human Movement using Simulated Physics and Neurobiomechanics with Probabilistic Inference," PI: O.C. Jenkins, total $1,008K, Jun. 2008 - Sep. 2013.

DARPA SBIR Phase II Award "Tactical Teams II: Cooperative Robot/Human

Teams for Tactical Maneuvers," PI: C.V. Jones, co-PI: O.C. Jenkins, total $750K, Oct. 2008 - Oct. 2010.

2007 NSF Award CNS-0742156 "Collaborative Research: BPC-A: ARTSI: Advancing Robotics Technology for Societal Impact," PI: O. Jenkins, total $90K, Sep. 2007 - Nov. 2010.

ONR Award N000140710141 "Learning Predictive Motion Vocabularies for Kinematic Tracking and Activity Recognition," PI: O.C. Jenkins, total $380K, Mar. 2007 - Mar. 2010.

ONR SBIR Award "Natural Human-Robot Interaction," PI: C.V. Jones, co-PI: O.C. Jenkins, total $100K, Mar. 2007 - Sep. 2007.

Brown Salomon Award "RobAuCon: Autonomous Control for Robots from Demonstration," PIs: O. Jenkins and M. Sellmann, total $30K, Jan 2006 - Jun 2007.

DARPA SBIR Award "Tactical Teams: Cooperative Robot/Human Teams for Tactical Maneuvers," PI: C.V. Jones, co-PI: O.C. Jenkins, total $100K, Dec. 2006 - May 2007.

2006 ONR DURIP Award "Neural interfaces to enhance human motor performance: Instrumentation for modeling dexterous manipulation," PI: M.J. Black, co-PIs: O.C. Jenkins and J.P. Donoghue, total $315K, Apr. 2006 - Mar. 2008.

2005 NSF Award IIS-0534858 "Statistical Models of the Primate Neocortex: Implementation and Application," PI: T. Dean, co-PIs: O. Jenkins and M. Black, total $480K, Nov. 2005 - Nov. 2008.

2004 INRIA "Associate Team Grant: Video and Mesh Processing for 3D Cinematography," PI: R. Ronfard, co-PIs: O. Jenkins, E. Boyer, R. Horaud, G. Taubin, $20K, started Jan. 2005.

Consulting

2018-19 Defense Sciences Study Group (DSSG)

2011 NSF/WTEC International Assessment of Human-Robot Interaction R&D

2007 DARPA Computer Science Futures Study Panel

Professional Service

Board of Trustees

CNA Corp. Member, Board of Trustees, CNA Corporation, 2020-Present

Advisory Boards and Professional Committees

ACM Council Member, ACM Council, Association for Computing Machinery, 2024-Present

IEEE RAS Vice President for Educational Activities, Robotics and Automation Society, Institute of Electrical and Electronics Engineers, 2024-Present

CRA-WP Member, Board of Directors, Computing Research Association Committee on Widening Participation in Computing Research (formerly Committee on the Status of Women in Computing Research), 2018-Present

CRA DREU	Program Co-Chair, CRA Distributed Research Experiences for Undergraduates, 2018-2021, 2024-Present
CRA SEECA	Founding Program Chair, Computing Research Association Skip Ellis Early Career Award Program, 2019-2024
CRA CCC	Council Member, Computing Research Association Computing Community Consortium, 2019-2022
R:SS	Board Member, Robotics: Science and Systems (RSS) Foundation, 2019-2023
AAAI	Executive Council Member, Association for the Advancement of Artificial Intelligence, 2019-2022
AI Roadmap	Contributor, Computing Community Consortium AI Roadmap, 2019
NSF EWF AC	Member, Advisory Subcommittee, National Science Foundation Education and Workforce Cluster, 2018-Present
CRA URMD	Member, Steering Committee, CRA Graduate Cohort Symposium for Underrepresented Minorities in Computing, 2017-Present
Robotics Roadmap	Contributor, CRA/CCC Robotics Roadmap: "A Roadmap for US Robotics From Internet to Robotics", 2008-12

University/Departmental Service

2022-2024	Founding Senior Associate Chair, Robotics Department, University of Michigan
2022-2024	Founding Undergraduate Chair, Robotics Department, University of Michigan
2019-2024	Associate Director for Undergraduate Education, Robotics Institute, University of Michigan
2019-2022	Member, Faculty Senate, University of Michigan
2016-2022	Member, Executive Committee, University of Michigan Robotics Institute
2015-2021	Member, University of Michigan CSE Graduate Committee
2018-19	Chair, University of Michigan College of Engineering Dean's Advisory Committee on Faculty of Color
2017-18	Founding Member, University of Michigan College of Engineering Dean's Advisory Committee on Faculty of Color
2016-17	Chair, University of Michigan CSE Safety Committee
2015-16	Member, University of Michigan Robotics Day Organizing Committee
2014-15	Auxiliary Member, Brown CS Development Committee
2012-15	Founder, Humanity-Centered Robotics Initiative at Brown University
2014	Member, Brown University Rapid Planning Group on Entrepreneurship
2013-14	Member, Brown University Dean of the College Search Committee
2013-14	Member, Brown University CS Vision Committee
2013	Member, Brown University Vice President of Research Search Committee
2011-14	Member, Brown 250th Anniversary Steering Committee

2010-11	Chair, Brown University CS Public Relations Committee
2009-10	Member, Brown University CS Facilities Committee
2009-10	Chair/Member, Brown University CS Graduate Examination Committee
2007-8	Member, Brown University CS Graduate Admissions Committee
2006-8	Member, Brown University Faculty Executive Committee
2005-7	Member, Brown University CS Graphics Candidate Search Committee
2005-7	Member, Brown University CS Curriculum Committee
2004-6	Mentor, Brown University ALANA (African, Latino, Asian, and Native American) Mentoring Program
2004-5,7-8	Member, Brown University CS Doctoral Admissions Committee
2002-2003	Organizer, USC Computer Science Research Social Event Series
2002	Session Moderator, 5th Annual University of Southern California Graduate and Professional Student Senate Interdisciplinary Conference, April 12th, 2002.
1998-2002	Vice President for Finance/Communications Chair, USC Computer Science Graduate Organization
1998-1999	Graduate Representative, USC Integrated Media Systems Center Student Council
1994-1996	President/Vice President, Association for Computing Machinery Alma College Chapter

Editorial and Peer-Review

Journal Editing

2017-	Editor-in-Chief, ACM Transactions on Human-Robot Interaction (formerly Journal of Human-Robot Interaction)
2015	Guest Editor, Special Issue on "Natural User Interfaces for Adjustable Autonomy in Robot Control", IEEE Computer Graphics and Applications
2008-2011	Associate Editor, International Journal of Social Robotics
	2010 Guest Editor, Special Issue on "Robot Learning in Practice", IEEE Robotics and Automation Magazine

Organizing Committees

NRI 2020	Co-Program Chair, National Robotics Initiative Principal Investigator Meeting
CAARMS 2017	Organizer, Conference for African-Americans in the Mathematical Sciences
AI+HRI 2014	Organizer, AAAI Fall Symposium on Artificial Intelligence and Human-Robot Interaction
HRI 2012	Program Chair, ACM/IEEE Human-Robot Interaction Conference
IROS 2011	Editor, IEEE Intelligent Robots and Systems Conference
AAAI-10 PGAI	Program Co-Chair, AAAI 2010 Track on Physically Grounded Artificial Intelligence

IJCAI 2009	Lead-Chair, IJCAI 2009 Robotics Exhibition and Challenges
AAAI Symposia	Co-Chair, AAAI Symposia Series
Robot Learning	Member, Steering Committee, IEEE Robotics and Automation Society Technical Committee on Robot Learning
AAAI 2008	Co-Chair, AAAI 2008 Mobile Robot Exhibition and Competition
ICDL 2008	Publications Chair, International Conference on Development and Learning
ICRA 2008	Principal Organizer, ICRA 2008 Workshop on Unifying Characteristics of Research in Human-Robot Interaction
AAAI 2007	Mobile Robot Workshop Chair, AAAI 2007
ICDL 2007	Special Session Organizer, International Conference on Development and Learning
Tapia 2007	Founding Robotics Competition Chair, Richard Tapia Celebration of Diversity in Computing Conference
R:SS 2006	Publicity Chair, Robotics:Science and Systems
R:SS 2005	Principal Organizer, Robotics:Science and Systems, Workshop on Modular Foundations for Control and Perception

Program Committees

AAAI 2020	Senior Program Committee, AAAI Conference on Artificial Intelligence
IJCAI 2016	IJCAI Conference on Artificial Intelligence
AAAI 2016	AAAI Conference on Artificial Intelligence
HRI 2013	Human-Robot Interaction
HRIP 2013	Human-Robot Interaction Pioneers Workshop
IJCAI 2011	Senior Program Committee, International Joint Conference on Artificial Intelligence
HRI 2011	Human-Robot Interaction
AAMAS 2011	Senior Program Committee, Autonomous Agents and Multiagent Systems
ICRA 2011	Associate Editor, IEEE International Conference on Robotics and Automation
HRI 2010	Human-Robot Interaction
ICML 2010	International Conference on Machine Learning
RSS 2010	Robotics: Science and Systems
ICRA 2010	Associate Editor, IEEE International Conference on Robotics and Automation
ICDL 2009	International Conference on Development and Learning
IJCAI 2009	International Joint Conference on Artificial Intelligence
AAMAS 2009	Autonomous Agents and Multiagent Systems
ICAR 2009	International Conference on Advanced Robotics
HRI 2009	Human-Robot Interaction

RSS 2008	Robotics: Science and Systems
AAAI 2008	National Conference on Artificial Intelligence
AAAI 2008	National Conference on Artificial Intelligence, Physically Grounded AI Track
ICINCO 2008	International Conference on Informatics in Control, Automation, & Robotics
HRI 2008	International Conference on Human-Robot Interaction
ARM 2007	R:SS Workshop on Robot Manipulation: Sensing and Adapting to the Real World
ICDL 2007	International Conference on Development and Learning
IROS 2007	Associate Editor, IEEE Intelligent Robots and Systems
RO-MAN 2007	IEEE International Workshop on Robot and Human Interactive Communication
AAAI 2007	Conference on Artificial Intelligence
ICINCO 2007	International Conference on Informatics in Control, Automation, & Robotics
R:SS 2007	Robotics:Science and Systems
AAMAS 2007	Autonomous Agents and Multiagent Systems
IJCAI 2007	International Joint Conference on Artificial Intelligence
ICML 2006	International Conference on Machine Learning
AAAI 2006	National Conference on Artificial Intelligence
AAMAS 2006	Autonomous Agents and Multiagent Systems
ICRA 2006	IEEE International Conference on Robotics and Automation
PHI 2005	IEEE International Workshop on Modeling People and Human Interaction (PHI'05)
RO-MAN 2005	IEEE International Workshop on Robot and Human Interactive Communication
AAAI 2005	National Conference on Artificial Intelligence
ICAR 2005	International Conference on Advanced Robotics
ICRA 2005	IEEE International Conference on Robotics and Automation

Tutorials and Panels

CRA URMD	CRA Grad Cohort Workshop for Underrepresented Minorities and People with Disabilities, 2018, 2019, 2020
GEM Grad Lab	The National GEM Consortium Getting Ready For Advanced Degrees (GRAD) Lab, co-located with the National Society of Black Engineers Conference, 2016, 2017, 2019
ACW	Center for Minorities and People with Disabilities in Information Technology Academic Careers Workshop, 2016, 2019
HRI 2012	"ROS and Rosbridge: Roboticists out of the loop" International Conference on Human-Robot Interaction, Boston, MA, USA, March 5, 2012.
ARTSI 2009	"Regression 101"

	ARTSI (Advancing Robotics Technology for Societal Impact) Faculty Summer Workshop, Atlanta, GA, USA, June, 8, 2009
PSSCR 2007	"Robot Learning"
	at Player Summer School on Cognitive Robotics, Technical University of Munich, Munich, Germany, August 18, 2007
MASS 2003	"Embodied Robotic Agents"
	at Melbourne Agent Systems School, University of Melbourne, Melbourne, Australia, July 11, 2003

Reviewing: Grants and Funding

NSF	IIS Community of Visitors: 2019
NSF	CISE: 2005, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2017, 2018
CRA/CCC	CI-Fellows: 2010

Reviewing: Journals

IEEE RA-L	IEEE Robotics and Automation Letters
IEEE RAM	IEEE Robotics and Automation Magazine
IJRR	International Journal of Robotics Research
AURO	Autonomous Robots
IJHR	International Journal of Humanoid Robotics
IEEE T-RO	IEEE Transactions on Robotics
IEEE SMC-A	IEEE Transactions on Systems, Man, and Cybernetics (Part A)
IEEE SMC-B	IEEE Transactions on Systems, Man, and Cybernetics (Part B)
ISR	Intelligent Service Robotics
IJSR	International Journal of Social Robotics
IS	Interaction Studies
NN	Neural Networks
ACM ToG	ACM Transactions on Graphics (and SIGGRAPH 2002,2004,2005,2008,2009; SIGGRAPH Asia 2008,)
Comput Graph	Computers & Graphics
IEEE TKDE	IEEE Transactions on Knowledge and Data Engineering
CVIU	Computer Vision and Image Understanding
IEEE TVCG	IEEE Transactions on Visualization and Computer Graphics
IEEE EMBS	IEEE Transactions on Biomedical Engineering
IEEE PAMI	IEEE Transactions on Pattern Analysis and Machine Intelligence
IJCV	International Journal of Computer Vision

Reviewing: Conferences

ICRA 2016	International Conference on Robotics and Automation
Humanoids 2015	IEEE-RAS International Conference on Humanoid Robotics
IROS 2015	IEEE Conference on Intelligent Robots and Systems
ICRA 2015	International Conference on Robotics and Automation
ICRA 2014	International Conference on Robotics and Automation
CVPR 2011	Computer Vision and Pattern Recognition
AAAI II 2010	AAAI 2010 Track on Integrated Intelligence
CVPR 2010	Computer Vision and Pattern Recognition
IROS 2010	IEEE Intelligent Robots and Systems
RO-MAN 2009	IEEE International Workshop on Robot and Human Interactive Communication
ICRA 2009	IEEE International Conference on Robotics and Automation
ICCV 2009	International Conference on Computer Vision
CVPR 2009	Computer Vision and Pattern Recognition
Tapia 2009	Tapia Celebration of Diversity in Computing 2009
IROS 2008	IEEE Intelligent Robots and Systems
CVPR 2008	Computer Vision and Pattern Recognition
ICRA 2008	IEEE International Conference on Robotics and Automation
IROS 2007	IEEE Intelligent Robots and Systems
Sandbox 2007	ACM SIGGRAPH Sandbox Symposium on Videogames
CVPR 2007	Computer Vision and Pattern Recognition
ICRA 2007	IEEE International Conference on Robotics and Automation
HRI 2007	Human-Robot Interaction
CVPR 2006	Computer Vision and Pattern Recognition
GI 2006	Graphics Interface
Humanoids 2004	IEEE-RAS International Conference on Humanoid Robotics
AAAI 2004	National Conference on Artificial Intelligence
GI 2004	Graphics Interface
ICDL 2002	International Conference on Development and Learning
IAS-6	International Conference on Intelligent Autonomous Systems
Humanoids 2000	IEEE International Conference on Humanoid Robotics

Teaching and Advising

5 courses taught at the University of Michigan

2024 ROB 320 Robot Operating Systems

- Winter 2024 Enrollment: 30

2023 ROB 498/599 Deep Learning for Robot Perception

- Winter 2023 Enrollment: 90

2021 ROB 102 Introduction to AI and Programming

- Fall 2024 Enrollment: 38
- Fall 2023 Enrollment: 36
- Fall 2022 Enrollment: 30
- Fall 2021 Enrollment: 17

2017 EECS 467 Autonomous Robotics Laboratory

- Winter 2021 Enrollment: 30
- Winter 2020 Enrollment: 31
- Winter 2019 Enrollment: 47
- Winter 2017 Enrollment: 40

2016 ROB 550 Robotic Systems Laboratory

- Fall 2016 Enrollment: 48

2016-18 ROB 511 (Mobile Manipulation Systems)

and undergraduate offering EECS 367 (Introduction to Autonomous Robotics)

also as graduate offerings ROB 510, ME 567, EECS 598 (Robot Modeling and Control)

- Winter 2024 Enrollment: 100
- Winter 2023 Enrollment: 138
- Fall 2020 Enrollment: 70
- Fall 2019 Enrollment: 70
- Fall 2018 Enrollment: 73
- Fall 2017 Enrollment: 50
- Fall 2016 Enrollment: 50
- Winter 2016 Enrollment: 43

2015 EECS 598-010 (Interactive Robot Manipulators Seminar)

- Fall 2015 Enrollment: 4

6 courses taught at Brown University

2004-15 CS 148 (Building Intelligent Robots)

- Spring 2015 Enrollment: 59

- Spring 2014 Enrollment: 30
- Fall 2011 Enrollment: 12
- Fall 2010 Enrollment: 44
- Fall 2009 Enrollment: 13
- Spring 2009 Enrollment: 28
- Fall 2007 Enrollment: 17
- Fall 2006 Enrollment: 16
- Fall 2005 Enrollment: 19
- Fall 2004 Enrollment: 21

2013-14 CS 195E (Human-Robot Interaction Seminar)

- Fall 2014 Enrollment: 4
- Fall 2013 Enrollment: 8

2011-12 CS 2951-A (Robots for Education)

- Spring 2012 Enrollment: 9
- Spring 2011 Enrollment: 9

2011-12 CS 195-N (Game Development Seminar)

- Spring 2011 Enrollment (Android and Core Techniques): 18
- Fall 2011 Enrollment (Android and Core Techniques): 12
- Spring 2012 Enrollment (3D Game Engines): 12

2007-10 CS 296-3/295-Z (Robot Learning and Autonomy)

- Spring 2007 Enrollment: 10
- Spring 2010 Enrollment: 10

2006-8 CS 134 (Innovating Game Development)

- Spring 2006 Enrollment: 22
- Spring 2008 Enrollment: 20

Postdoctoral supervising

2022-24 Dr. Jasmine Berry

2016-18 Dr. Troy McMahon

2009-12 Dr. Christopher Crick

2009-11 Dr. Sarah Osentoski

2009-10 Dr. Trevor Jay

Doctoral advising

2023- Jace Aldrich (Michigan Robotics)

2023- Amber Green (Michigan Robotics)

2020-	Anthony Opipari (Michigan CSE)
2019-	Stanley Lewis (Michigan Robotics)
2018-24	Jana Pavlasek (Michigan Robotics), dissertation: "Distributed Inference for Robotic Perception and Planning Under Uncertainty"
2020-24	Elizabeth Olson (Michigan Robotics), dissertation: "Counter-Hypothetical Evidential Reasoning for Mobile Manipulation Robots"
2020-23	Alphonsus Adu-Bredu (Michigan Robotics), dissertation: "Long-Horizon Planning Under Uncertainty and Geometric Constraints for Mobile Manipulation by Autonomous Humanoid Robots"
2018-23	Xiaotong Chen (Michigan Robotics), dissertation: "Affordance-grounded Robot Perception and Manipulation in Adversarial, Translucent, and Cluttered Environments"
2017-21	Zheming Zhou (Michigan Robotics), dissertation: "Robotic Manipulation under Transparency and Translucency from Light-field Sensing "
2013-20	Karthik Desingh (Michigan CSE), dissertation: "Efficient Belief Propagation for Perception and Manipulation in Clutter"
2013-20	Zhiqiang Sui (Michigan CSE), dissertation: "Robust Scene Estimation for Goal-directed Robotic Manipulation in Unstructured Environments "
2016-20	Zhen Zeng (Michigan ECE), dissertation: "Semantic Robot Programming for Taskable Goal-directed Manipulation"
2009-15	Mark Buller (Brown CS), dissertation: "Human Thermal-Work Strain Performance Optimization from Wearable Physiological Sensors"
2008-13	Marek Vondrak (Brown CS), dissertation: "Physically Plausible Human Pose and Control Estimation from Video"
2004-9	Daniel Grollman (Brown CS), dissertation: "Teaching old dogs new tricks: Incremental multimap regression for interactive robot learning from demonstration"

Masters research advising

2019-	Ji Hwang Kim
2019-	Anthony Opipari
2018-	Haonan Chang
2018-	Ning Xu
2018-19	Maithili Patel
2018-19	Tianyang Pan
2018-19	Shiyu Wu
2018-19	Xiaofan Zhu
2018-19	Rui Chen
2018-19	Shiyang Lu
2018	Xiaoke Wang

2017-18	Jill Meyerson
2017-18	Yunwen Chow
2017-18	Lee Rutledge
2017	Qingyu Chen
2016-17	Chandana Neerukonda
2016-17	Zheming Zhou
2016-17	Jiatao Fan
2014-15	Carl Olsson
2013-15	Lingzhu Xiang, project: "Mapping and Control with Telepresence Robots"
2011-12	Jihoon Lee, project: "Web Applications for Robots using rosbridge"
2009-10	Barbara Korel, project: "Teaching Autonomous Robotics using Player and ROS"
2009	Aysun Bascetincelik
2008-9	Glenn Donovan (Brown Engineering)
2008	Mark Buller
2008	Sanghoon Cha, project: "RCHeli: Infrastructure for PC-Controlled Micro Helicopter"
2008	Ahmad Wilson
2008	Neehar Cherabuddi
2007-8	Jesse Butterfield, project: "Multi-robot Markov Random Fields"
2009-8	Korhan Bircan
2006-7	Jonas Schwertfeger, project: "Multi-Robot Belief Propagation for Distributed Robot Allocation"
2005-6	Brendan Dickinson, project: "Roomba Pac-Man: Teaching Autonomous Robotics through Embodied Gaming"
2005-6	Mark Moseley, project: "Technical Aspects of Roomba Pac-Man"
2005-6	Suamporn Ketpreechasawat, project: "Hierarchical Landmark Charting"
2004-6	Ethan Leland, project: "The Brown University Robocup 2006 Four-legged League Team Report"
2005-6	Pawel Wrotek, project: "Dynamo: Dynamic, Data-driven Character Control with Adjustable Balance"
2004-6	Matthew Loper
2006	Jason Mallios
2005	Salil Apte, project: "Time-Varying Azimuth Discrimination and Resynthesis: A New Method for Music Repurposing".

Visiting Graduate Student Supervision

2006-7 Marek Vondrak

2005-6 Germán González (KTH), Masters thesis: "Kinematic Tracking and Activity Recognition Using Motion Primitives"

- Best AI Masters Thesis of 2005, Swedish Artificial Intelligence Society

Undergraduate Research/Thesis Advising

2018- Thomas Cohn

2019 Cigdem Kokenoz

2017-18 Anthony Opipari

2017-18 Nathan Moos

2013-15 Matt Wong

2010-11 Pete White

2009-11 Joshua Kaplan

2009-11 Matt Wilde

2009-10 Lyla Fujiwara

2009-10 Paul Meier

2007-9 Micah Lapping-Carr, honors thesis: "RGame: A Video Game for Interactive Robot Learning"

2007-8 Daniel Byers

2008 Jesse Errico

2006-7 Theadora Hinkle

2007 Stephanie Greer

2006 Alexander Rice

2006 Graham Rosser

2006 David Bloom, Brown UTRA Award

2005 Edwin Chang, honors thesis: "Sketching Articulation and Pose for Facial Meshes".

2005 Gabriel Taubman, honors thesis: "MusicHand: A Handwritten Music Recognition System".

2005 Daniel Hartmann

Ph.D. Dissertation Committee Member

2024 Elizabeth Goeddel

2024 Morteza Fayazi

2024 Shengyi Qian

2024 Oluwami Dosunmu-Ogunbi

2023 Grant Gibson

2022 Weiyu Liu

2021	Yukai Gong
2021	Aschi Haggenmiller
2021	Lu Gan
2020	Gideon Billings
2020	Dongyao Chen
2019	Xipeng Wang
2019	Ryan Marcotte
2018	Dhanvin Mehta
2018	Arash Ushani
2017	Collin Johnson
2017	Robert Goeddel
2016	Justin Storms
2014	Russell Toris (WPI)
2014	Seungsu Kim (EPFL)
2012	Wenjin Zhou
2011	Nik Melchior (Carnegie Mellon)
2011	Jan Bandouch (TU-Munich)
2010	Jon Cohen
2008	Casey Marks
2007	Lijuan Cai
2006	Christina N. de Juan (Vanderbilt)

Additional Information

Selected Media Coverage

2014	"I, Robot", in *2013 Brown University Annual Presidential Report*
	"Robotics Professor Wows Republicans at Retreat", in *AAAS Science Insider*, January 31, 2014
2011	"Crowdsourced online learning gives robots human skills", in *New Scientist*, July 26, 2011
2009	"Robots Get Their Own Operating System", in *New Scientist*, Aug 10, 2009
	"Wag the Robot: Robot Responds To Human Gestures", in *ScienceDaily*, March 12, 2009.
2006	"Let's Make a Game", by Lawrence Goodman, in *Brown Alumni Magazine*, July/August 2006.
	"Science as a sport", by Bryan Rourke, in *The Providence Journal*, June 8, 2006.

"Robopups do not lie down", by Maggie O'Brien, NBC Evening News (Providence Channel 10), aired May 9, 2006.

2003 "The Many Faces of Behavior", by Torbjorn Dahl, in *European Research Consortium for Informatics and Mathematics News*, Number 53, April 2003.

2001 ABC Evening News (Los Angeles Channel 7), by Miriam Hernandez, featured videos of humanoid robot imitating human motion, aired June 27, 2001.

Production Credits

1998 Animator/Modeler, *An Alien Occurrence*, produced by the Georgia Tech Animation Lab.

Personal

Citizenship	United States of America
Gender	Male
Ethnicity	Black / American Black
Family	Married, 3 children

Ann Arbor, MI, USA