

# NICK WALKER

Ph.D. Student in Computer Science

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nickwalker.us

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## EDUCATION

- 2018–      The University of Washington, Seattle, WA.
- Ph.D. Computer Science
- 2014–2018      The University of Texas, Austin, TX.
- BSA Computer Science Honors
  - Polymathic Scholar (Interdisciplinary Honors)

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## CONFERENCE

- [c5]      Y. Jiang\*, N. Walker\*, J. W. Hart, P. Stone. Open-World Reasoning for Service Robots. In *Proc. Int. Conf. Automated Planning Scheduling (ICAPS)*. July 2019
- [c4]      J. Thomason, A. Padmakumar, J. Sinapov, N. Walker, Y. Jiang, H. Yedidsion, J. W. Hart, P. Stone, R. Mooney. Improving Grounded Natural Language Understanding through Human-Robot Dialog. In *Proc. Int. Conf. Robotics Automation (ICRA)*. May 2019
- [c3]      J. Hart, R. Shah, S. Kirmani, N. Walker, K. Baldauf, N. John, P. Stone. PRISM: Pose Registration for Integrated Semantic Mapping. In *Proc. IEEE/RSJ Int. Conf. Intelligent Robots and Systems (IROS)*. Madrid, July 2018
- [c2]      M. Svetlick, M. Leonetti, J. Sinapov, R. Shah, N. Walker, P. Stone. Automatic Curriculum Graph Generation for Reinforcement Learning Agents. In *Proc. 31st AAAI Conf. Artificial Intelligence*. San Francisco, February 2017
- [c1]      E. Schroeder, N. Walker, A. Danko. Wearable Ear EEG for Brain Interfacing. In *Proc. SPIE Neural Imaging Sensing*. San Francisco, February 2017

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## REFEREED SYMPOSIUM, WORKSHOP

- [w4]      N. Walker\*, Y. Jiang\*, P. Stone, M. Cakmak. Desiderata for Planning Systems in General-Purpose Service Robots. *ICAPS PlanRob Workshop*. Berkeley, July 2019
- [w3]      N. Walker, Y. Peng, M. Cakmak. Neural Semantic Parsing with Anonymization for Command Understanding in General-Purpose Service Robots. *RoboCup 2019: Robot World Cup XXIII*. Sydney 2019
- [w2]      Y. Jiang\*, N. Walker\*, M. Kim, N. Brissonneau, D. S. Brown, J. W. Hart, S. Niekum, L. Sentis and P. Stone. LAAIR: A Layered Architecture for Autonomous Interactive Robots. In *AAAI Fall Symposium on Reasoning and Learning in Real World Systems for Long-term Autonomy*. Arlington, October 2018
- [w1]      J. W. Hart, H. Yedidsion, Y. Jiang, N. Walker, R. Shah, J. Thomason, A. Padmakumar, R. Fernandez, J. Sinapov, R. Mooney and P. Stone. Interaction and Autonomy in RoboCup@Home and Building-Wide Intelligence. In *AAAI Fall Symposium on Interactive Learning in Artificial Intelligence for Human-Robot Interaction*. Arlington, October 2018

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## PRESENTATIONS

- 2018      UT Austin Villa@Home. RoboCup@Home Domestic Standard Platform League 2018,

Updated July 2019

- 2017 Montreal. N. Walker for UT Austin Villa. Poster. **Best DSPL Poster**  
Automatic Curriculum Graph Generation for Reinforcement Learning Agents. AAAI 2017, San Francisco. N. Walker, R. Shah. Oral Spotlight, Poster.

## RECOGNITION

- 2018 Best Poster for DSPL with UT Austin Villa – *RoboCup@Home DSPL*  
2018-19 Computer Science & Engineering Research Fellowship – *Allen School, UW*  
2018 Commencement Student Speaker – *College of Natural Sciences, UT*  
2018 GRFP Honorable Mention – *National Science Foundation*  
2018 Dean’s Honored Graduate – *College of Natural Sciences, UT*  
2018 Outstanding Undergraduate Researcher Award Honorable Mention  
*Computing Research Association*  
2017 TIDES Fellowship – *Texas Institute for Discovery Education in Science, UT*  
2014-18 College of Natural Sciences Scholarship – *College of Natural Sciences, UT*

## RESEARCH COMPETITIONS

- 2018 5th Place, RoboCup@Home DSPL, UT Austin Villa@Home – *RoboCup Federation*  
2017 3rd Place, RoboCup@Home DSPL, UT Austin Villa@Home – *RoboCup Federation*

## RESEARCH AFFILIATIONS

- 2018– Human-Centered Robotics Lab - *University of Washington*  
• PI: Maya Cakmak  
2017-18 UT Austin Villa@Home - *University of Texas at Austin*  
• PIs: P. Stone, L. Sentis, S. Niekum, A. Thomaz, R. Mooney. Supervisor: Justin Hart  
2015-18 Building Wide Intelligence Project - *UT AI Lab*  
• PI: Peter Stone. Supervisors: Matteo Leonetti, Jivko Sinapov, Justin Hart

## OUTREACH

- 2018 Demo Assistant – *UW Engineering Discovery Days*  
• Organized and helped run an exhibit demonstrating the our lab’s research  
2018 Program Assistant – *UTCS Robotics Camp*  
• Helped high school students assemble robot kit, program intelligent behaviors  
2017, 2018 Demo Assistant – *Explore UT*  
• Ran demos on our robots and explained BWI’s research to community members  
2017 Workshop Assistant – *UT Introduce a Girl to Engineering Day*  
• Taught grade school girls about electricity using Play-Doh and LEDs  
2016, 2017 Workshop Instructor – *UT Computer Science, Code Longhorn & First Bytes*  
• Taught high school students from underrepresented groups about web technologies  
2016-18 Peer Mentor – *Freshman Research Initiative*  
• Helped first- and second-year students formulate their research projects

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**SERVICE**

2019-20 Peer Mentor – *Allen School First Year Graduate Student Mentoring*  
2018-19 Contributor – *RoboCup@Home Rulebook*  
2018-19 Reader – *Allen School Ph.D. Admissions Committee*

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**MEETING PARTICIPATION**

- ICAPS 2019, Berkeley
  - RoboCup@Home 2019, Sydney
  - AAAI Fall Symposium Series 2018, Arlington
  - RoboCup@Home 2018, Montreal
  - AAAI 2017, San Francisco
  - Toyota Research Institute HSR Training 2017, Palo Alto
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**WORK AND TEACHING EXPERIENCE**

Winter 2019 Teaching Assistant – *UW CSE 517A*

- Developed assignments and supported undergraduates using the Kuri robot for their robotics capstone course

Summer 2016 Research Engineer Intern – *USAA*

- Developed experimental brain-computer interface software and hardware
- Work contributed to a SPIE conference publication

Summer 2015 Research Engineer Intern – *USAA*

- Characterized the performance of automated speech transcription vendors
- Developed evaluation methodology that led to a patent application

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**SKILLS**

- Experience with robotics software (*ROS, C++, Python*)
  - Experience with robotics platforms (*Fetch, Kuri, HSR, BWIBot*)
  - Proficient in embedded development (*C, C++*)
  - Proficient with web technologies (*PHP, Typescript, HTML, CSS*)
  - Handy with creative tasks in *Photoshop, Illustrator, InDesign, Premiere*
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**PERSONAL**

	<a href="http://nickwalker.us">nickwalker.us</a>		<a href="https://github.com/nickswalker">github.com/nickswalker</a>
	<a href="https://twitter.com/nickwalker_us">twitter.com/nickwalker_us</a>		<a href="https://www.flickr.com/photos/nickwalker-us/">flickr.com/photos/nickwalker-us/</a>
	<a href="https://www.linkedin.com/in/niwalker">linkedin.com/in/niwalker</a>		

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