NICK WALKER

B.S.A. Computer Science, May 2018

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Education

May 2018   **The University of Texas at Austin**   GPA: 3.9, Major: 3.86
- B.S.A., Honors in Computer Science
  - Relevant courses: Reinforcement Learning, Artificial Intelligence, Autonomous Intelligent Robotics I & II, Computer Vision Honors, Computational Linguistics, Embedded Systems, User Research
- *Polymathic Scholar* (Interdisciplinary Honors)
  - Thesis field title: *Information, Interfaces and Friction*
- Bridging Disciplines certificate in **Digital Arts and Media**
  - Relevant courses: Computer Graphics, Creative Coding, 3D Production

Publications

2017   **Automatic Curriculum Graph Generation for Reinforcement Learning Agents**

M. Svetlick, M. Leonetti, J. Sinapov, R. Shah, N. Walker, P. Stone. In *Proceedings of the 31st AAAI Conference on Artificial Intelligence*. San Francisco, February 2017
- Contributed empirical evaluations, experiments, writing, and feedback on the core algorithm

2017   **Wearable Ear EEG for Brain Interfacing and Monitoring**

E. Schroeder, N. Walker, A. Danko. In *Proceedings of SPIE.* San Francisco, February 2017
- Contributed empirical evaluations, experiment design, embedded software, experimental software

Posters

2017   **Automatic Curriculum Graph Generation for Reinforcement Learning Agents**

M. Svetlick, M. Leonetti, J. Sinapov, R. Shah, N. Walker, P. Stone. *The 31st AAAI Conference on Artificial Intelligence (AAAI-17)*. San Francisco, February 2017
- Co-presented with Rishi Shah

Research Affiliations

2017–   **Austin Villa@Home – UT Austin**

PIs: P. Stone, L. Sentis, S. Niekum, A. Thomaz, R. Mooney. Supervisor: Justin Hart
RoboCup@Home DSPL Team, Toyota HSR

2015–   **Building Wide Intelligence Project – UT Computer Science AI Lab**

PI: Peter Stone. Supervisors: Matteo Leonetti, Jivko Sinapov
Custom Segbot service robotics research platform

Current Projects

Reinforcement learning agents for energy-efficient arm control
- Evaluating policy gradient approaches for learning efficient motor control
- Investigating usecases on Segbot service robots with Kinova Mico arm

Work Experience

Summer 2017	**UT Computer Science AI Lab** – Undergraduate research assistant
	· Continuing research in reinforcement learning and service robotics
	· Contributing to Austin Villa@Home RoboCup team
Summer 2016	**USAA** – Research Engineer Intern
	· Developed experimental brain computer interface software and hardware
	· Work contributed to SPIE conference publication
2015–	**Freshman Research Initiative** – Peer Mentor
	· Helped students in the Autonomous Intelligent Robotics stream with classwork
	· Familiarized students with the Building Wide Intelligence Segbot platform
	· Helped new mentors interested in reinforcement learning begin their research
Summer 2015	**USAA** – Research Engineer Intern
	· Evaluated natural language software vendors to inform large business decision
	· Coinventor on two provisional patent applications

Skills

- Research experience with robotics and AI **(ROS, reinforcement learning)**
- Experienced with **Python** and **Java**
- Experienced with iOS development **(Swift)**
- Proficient in embedded development **(C, C++)**
- Exposure to web technologies **(Typescript, SCSS, HTML)**

Recognition

2017	TIDES Summer Fellowship – Texas Institute for Discovery Education in Science
2016–	College Scholar – College of Natural Sciences
2015–	University Honors List – UT Austin
2014–	College of Natural Sciences Scholarship
2014–	Dr. Charles and Mary Love Bailey Scholarship – Texas Exes
2014–	Hispanic Faculty/Staff Association Scholarship – Texas Exes

Leadership

2015–	**Mobile Application Development (student org.)** – Labs Director, iOS Instructor
	· Lead teams of student developers working on pro-bono projects
	· Shipped major updates to the CS department's app
	· Lead teams to develop apps for MADcon, a free developer conference
	· Taught introductory iOS development workshops on a weekly basis

Social Media

linkedin.com/in/niwalker   github.com/nickswalker

Interests

· Classical violin   · Photography   · Fencing   · Type design