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
  - Selected courses: Reinforcement Learning, Artificial Intelligence, Neural Networks, Computer Vision, Computational Linguistics, Autonomous Intelligent Robotics, Robot Learning, Human Robot Interaction, 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, <u>N. Walker</u>, 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. Co-presented with Rishi Shah

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

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

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, Justin Hart
Custom Segbot service robotics research platform

Current Projects

Transfer learning for multi-modal object exploration
- Working with data collected on HSR, Baxter and BWIBot
- Aims to speed up learning by leveraging data collected on different platforms

Intelligent idle behaviors for improved interaction with a robot arm
- Evaluating idle behaviors to use when robot needs to pause during interaction
- Aims to increase user engagement and increase robot's perceieved intelligence

Work Experience

Summer 2017   **UT Computer Science AI Lab** – TIDES Fellow
- Wrote software for Austin Villa@Home RoboCup team
- Team placed 3rd in the Domestic Standard Platform League

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
- 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

2017–2018	Angus G. and Erna Pearson Endowed Undergraduate Scholarship – UT CS
2017	TIDES Summer Fellowship – Texas Institute for Discovery Education in Science
2016–	College Scholar – UT 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

2015–2017   **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