

Sean Kirmani

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EDUCATION

The University of Texas at Austin

Bachelor of Science, Computer Science

May 2018

Bachelor of Science, Electrical and Computer Engineering (Embedded Systems focus)

May 2018

Overall GPA: 3.69/4.0

Honors Capstone Project: Deep Reinforcement Learning for Aerial Obstacle Avoidance Using Monocular RGB Images

Advisor: Dr. Nuria Gonzalez-Prelcic

Selected coursework: Robot Learning, Human-Robot Interaction, Artificial Intelligence, Neural Networks, Computer Vision, Computer Graphics, Physical Simulation, Operating System, Signal Processing, Embedded Systems, Computer Architecture

SKILLS & INTERESTS

Interests Robot Learning, Human-Robot Interaction, Artificial Intelligence, Deep Reinforcement Learning, Computer Vision, Computer Graphics, Physical Simulation, Augmented Reality

Familiar Technologies Tensorflow, Robot Operating System, OpenGL, Vim, Git, UNIX, Android, Unity

EXPERIENCE

X — Software Engineer, Robotics

July 2018 - Present

Working on perception for robots. Mountain View, California.

X — Software Engineering Intern, Robotics

May 2017 - Aug 2017

Worked on perception for human-robot interaction. Mountain View, California.

Google VR — Software Engineering Intern, Project Tango

May 2016 - Aug 2016

Worked on experimental augmented reality. Created environmental lighting system allowing more photorealistic lighting and reflections in augmented reality for Tango SDK. Google Developer Blog post available at goto.kirmani.io/tango. Experience in computer graphics, computational photography, and computer vision. Worked with C++, Unity, and Java. Mountain View, California.

Google — Software Engineering Intern, Chrome for Android

May 2015 - Aug 2015

Served as an intern on tools and infrastructure for Chrome for Android. Wrote test infrastructure for sign-in authentication tests. Also created parametrizable testing framework. All code is open source as part of Chromium. Viewable at goto.kirmani.io/chromium. Worked with Java, Python, and C++. Mountain View, California.

Accordion Health — Software Engineer

Aug 2014 - Jan 2015

Used machine learning for health care data analytics. Clustered co-morbidity for several sets of patients. Experience in data visualization. Worked with R, Python, and D3.js. Austin, Texas.

Internet Marketing Inc. — Web Developer Intern

May 2013 - Sep 2013

Set up Unix servers and configured SQL databases. Developed over 20 websites in the summer. Managed and maintained cloud servers. Worked with HTML, CSS, PHP, JavaScript, and jQuery. Las Vegas, Nevada.

RESEARCH

Robotics Lab at UT Austin, Dr. Peter Stone and Dr. Justin Hart

Dec 2017 - Apr 2018

Research on semantic mapping and social navigation with the Building Wide Intelligence (BWI) lab. Austin, Texas.

Robotics Lab at UT Austin, Dr. Andrea Thomaz and Dr. Scott Niekum

Jan 2016 - May 2017

Research in human robot interaction in the Personal Autonomous Robotics Lab (PeARL) and Socially Intelligent Machines (SiM) Lab. Experience in behavior architectures, perception, planning, and machine learning. Austin, Texas.

Wireless Networking & Communication Group, Dr. Joydeep Ghosh

Aug 2014 - Jan 2016

Selected by Professor Joydeep Ghosh in the University of Texas Electrical and Computer Engineering department in the Intelligent Data Exploration and Analysis Laboratory (IDEAL). Lab focuses on machine learning and data mining. Research on making self-driving cars a safe reality using distributed machine learning through wireless communication. Austin, Texas.

PUBLICATIONS

PRISM: Pose Registration for Integrated Semantic Mapping

Justin Hart, Rishi Shah, [Sean Kirmani](#), Nick Walker, Kathryn Baldauf, Nathan John, Peter Stone

Under review at the *IEEE/RSJ International Conference on Intelligent Robots and Systems. (IROS)*, 2018.

Passive Demonstrations of Light-Based Robot Signals for Improved Human Interpretability

Rolando Fernandez, Nathan John, [Sean Kirmani](#), Justin Hart, Jivko Sinapov, Peter Stone

Under review at the *IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*, 2018.

AWARDS

University Honors, University of Texas at Austin	May 2018
University Honors, University of Texas at Austin	Dec 2017
University Honors, University of Texas at Austin	May 2017
University Honors, University of Texas at Austin	Dec 2016
Engineering Foundation Undergraduate Endowed Presidential Scholarship, University of Texas at Austin	Jun 2015
University Honors, University of Texas at Austin	May 2015
Distinguished College Scholar, University of Texas at Austin	Apr 2015
University Honors, University of Texas at Austin	Dec 2014
University Honors, University of Texas at Austin	May 2014
Distinguished College Scholar, University of Texas at Austin	Apr 2014
University Honors, University of Texas at Austin	Dec 2013

UNIVERSITY ORGANIZATIONS

Eta Kappa Nu (Electrical Engineering Honor Society) — Member by Invitation	Sep 2016 - Present
Tau Beta Pi (Engineering Honor Society) — Member by Invitation	Sep 2015 - Present
Institute of Electrical and Electronics Engineers — Communication Director	May 2016 - May 2017
Institute of Electrical and Electronics Engineers — Assistant Officer, Communications	Sep 2015 - May 2016
Institute of Electrical and Electronics Engineers, Computer Society — Publicity Chair	Sep 2015 - May 2016

EXTENDED RESUME AT KIRMANI.IO/RESUME
