Woodrow Wang

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EDUCATION

Stanford University — Stanford, CA
B.S.H. in Computer Science with focus in AI, Minor in Mathematics — Expected June 2021
M.S. in Computer Science with focus in AI — Expected June 2021

Awards: Terman Scholar (top 30 engineering students)
GPA: 4.067/4.0
Teaching Assistant: CS221: Artificial Intelligence: Principles and Techniques; CS103: Mathematical Foundations of Computing; CS168: The Modern Algorithmic Toolbox
Coursework: CS236: Deep Generative Models; CS231n: Convolutional Neural Networks for Visual Recognition; CS229: Machine Learning; CS230: Deep Learning; CS234: Reinforcement Learning

RESEARCH

Prosociality in Multi-Agent Reinforcement Learning — Stanford, CA

- Designed decentralized multi-agent RL methods to encourage selfish agents to reach prosocial equilibria
- **W. Wang***, M. Beliaev*, E. Biyik*, D. Lazar, R. Pedarsani, D. Sadigh. Emergent Prosociality in Multi-Agent Games Through Gifting. Submitted to the *International Conference on Autonomous Agents and Multiagent Systems (AAMAS),* May 2021.
- M. Beliaev*, **W. Wang***, D. Lazar, E. Biyik, D. Sadigh, R. Pedarsani. Emergent Correlated Equilibrium Through Synchronized Exploration. *RSS 2020 Workshop on Emergent Behavior in Human-Robot Systems,* July 2020.

Near-Accident Driving — Stanford, CA

- Collaborated with Toyota Research Institute to design policies to safely and efficiently control vehicles in near-accident scenarios using a novel hierarchical reinforcement learning over imitation learning model
- Z. Cao*, E. Biyik*, **W. Wang**, A. Raventos, A. Gaidon, G. Rosman, D. Sadigh. Reinforcement Learning based Control of Imitative Policies for Near-Accident Driving. *Robotics: Science and Systems (RSS),* July 2020.

Intuitive Teleoperation — Stanford, CA

- Encoded an over-actuated control space into a lower-dimensional, more intuitive, latent control space using variational autoencoders

EXPERIENCE

Stanford Intelligent and Interactive Autonomous Systems Group (ILIAD) — Stanford, CA
Research Assistant (Supported by CURIS) — 2018 - Present

- Developed learning algorithms to encourage prosociality and safety in human-robotic systems

Microsoft Corporation — Redmond, WA
SWE Intern, Xbox Team — Summer 2019

- Built machine learning and statistical models to predict activity on an Xbox console per user and device
- Implemented end-to-end pipeline to generate daily predictions of Xbox activity
- Designed procedure to use predictions to drive improved content updates and recommendations

Apple Inc. — Cupertino, CA
SWE Intern, WebKit Security Team — Summer 2018

- Built a new prototype machine learning classifier for Apple's Intelligent Tracking Prevention system
- Extended WebKit's tracking prevention features to recognize and prevent additional forms of user tracking
- Chosen to present work to Craig Federighi, senior vice president of Software Engineering

Lawrence Berkeley National Laboratory — Berkeley, CA
Research Assistant, Dark Energy Spectroscopic Instrument (DESI) — Summer 2017

- Created visualization tools for understanding the positions of stars and galaxies on DESI's focal plane

LEADERSHIP/ACTIVITIES

Stanford Club Ice Hockey Team — 2016 - Present
Captain 2019-Present, President 2019-Present, Vice President 2018-2019, Financial Officer 2017-2018

Stanford Collaborative Orchestra — 2016 - 2019
Concertmaster 2016-2019, Webmaster 2018-2019, Publicity Officer 2017-2018