Xiang Gu

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EDUCATION

The University of Texas at Austin **Austin, TX**
M.S. in Computer Science *Aug. 2019 – Present*

Shanghai Jiao Tong University **Shanghai, China**
B.S. in Computer Science *Sep. 2013 – Jun. 2019*
Thesis: Recommendation Systems: A Model-based RL Attempt. Advisor: Weinan Zhang

EXPERIENCE

AI Lab, Tencent Holdings Ltd. **Shenzhen, China**
Research Engineer Intern *Jun. 2019 – Aug. 2019*

- Collaborated with a Ph.D. student on developing reinforcement learning algorithms to assist cucumber growth via remote greenhouse control. This work has been submitted to AAAI 2020 for review.
- Performed preprocessing on sensory data from real planting process with jupyter notebook and pandas.
- Implemented tests to verify applicability of individual control variable optimization and discovered an effective planting strategy through simulation.
- Assisted in writing the related work and data preprocessing section of the paper.

RLAI Lab, University of Alberta **Edmonton, Canada**
Research Assistant Intern *Oct. 2018 – Feb. 2019*

- Analyzed the emphatic temporal difference (ETD) method under Prof. Rich Sutton's supervision. This work is pre-printed and available in arXiv (1903.00194).
- Implemented on-policy ETD and eight classic RL problems using Python.
- Tested and analyzed on-policy ETD to demonstrate its advantages compared to conventional on-policy TD.
- Wrote an extended abstract that summarizes our discoveries in this work.

LARG Lab, The University of Texas at Austin **Austin, Texas**
Research Assistant Intern *May 2018 – Sep. 2018*

- Extended an existing algorithm on off-policy prediction to off-policy control under Prof. Peter Stone's supervision. The report for this work is available in my Github page.
- Designed and proposed a novel off-policy policy gradient framework that is compatible with any policy gradient method.
- Wrote a report summarizing our work.

HONORS & AWARDS

- Outstanding Graduated Award (Awarded to top 5% graduated bachelor students) *May 2019*
- Department of Defense Scholarship *Jun. 2017*
- Yang Yuanqing Educational Fund in Computer Science (¥25,000) *Mar. 2017*
- University Merit Student (Awarded to top 3% students each year) *Nov. 2016*
- Outstanding Service Medal (Awarded from People's Liberation Army) *Sep. 2016*

ADDITIONAL INFORMATION

- Programming Languages: Python, Java
- Tools: Linux, LaTeX, Git, Numpy, Keras
- Interests: Basketball, Programming, Probability & Statistics, Reinforcement Learning
- Languages: Fluent in Chinese and English
- Work Eligibility: Eligible to work in the U.S.; will require visa sponsorship for full-time employment