Joshua Hoffman

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Education

The University of Texas at Austin Austin, Texas   May, 2020 – Present
College of Natural Sciences
Candidate for Doctorate of Philosophy, Computer Science
- Advisors: Joydeep Biswas and Swarat Chaudhuri

Northeastern University Boston, Massachusetts   September 2015 – May 2020
Khoury College of Computer Sciences
Candidate for Bachelor of Science in Computer Science, Minor in Mathematics   Graduation: May 2020
- GPA: 3.7/4.0; Dean's List: Fall 2015, Spring 2016, Spring 2017, Spring 2018, and Spring 2019

Publications

1. J. Hoffman, "Robustness in macro-action-based deep multi-agent reinforcement learning," in *First AAAI Conference on Artificial Intelligence Undergraduate Consortium (AAAI-UC)*, 2020. (16% acceptance rate)
2. Y. Xiao, J. Hoffman, and C. Amato, "Macro-action Deep Multi-Agent Reinforcement Learning," in *3rd Annual Conference on Robot Learning (CoRL)*, 2019. (27% acceptance rate)
3. Y. Xiao, J. Hoffman, T. Xia, and C. Amato, "Multi-Robot Deep RL with Macro-Actions" in IEEE International Conference on Robotics and Automation (ICRA), 2020.
4. Y. Xiao, J. Hoffman, T. Xia, and C. Amato, "Multi-agent/robot deep reinforcement learning with macro-actions," in *Proceedings of Thirty-Fourth AAAI Conference on Artificial Intelligence Student Abstract and Poster Program*, 2020.

Relevant Experience

Northeastern University Khoury College Boston, MA   June 2019 – April 2020
Robotics Research Assistant
- Researched deep reinforcement learning techniques and helped develop novel algorithms for multi-agent tasks
- Designed and implemented a multi-robot, Fetch Robot and Turtlebot2, system using Python, PyTorch, and ROS
- Published in the Conference on Robotic Learning (CoRL) and have additional publications pending peer-review

Data Machines Corporation Ashburn, VA   June 2018 – December 2018
DARPA Cloud Research Co-op
- Designed and implemented a multi-purpose web portal and associated backend in GoLang for researchers and government analysts attached to the DARPA Media Forensics research program
- Wrote and edited proposal to create next generation biometric-identification software solutions for the U.S. Army
- Developed internal asset management system in Python3 + Flask reliant on QR code technology and location services

Charles River Development Boston, MA   July 2017 – December 2017
Software Engineering Co-op
- Created an automation environment to test the UI on a nightly basis via PowerShell scripts
- Identified, documented, and fixed errors in the code base in C#
- Enhanced the automation infrastructure to create additional tests that would verify identified workflows
- Engaged in an agile work environment with scrum meetings and peer reviewed coworkers code

Hello Heart Tel Aviv, Israel   June 2016 – August 2016
Summer Software Developer Intern
- Wrote load testing scripts to test a load of 30,000 users on their servers using JMeter
- Documented and synthesized front end unit testing technique for iOS and Android

Related Experience

Northeastern University Khoury College Boston, MA   January 2019 – April 2019

Professional Development Course Fellow

- Taught a section of 50 students of the co-op preparation class that prepares students on how to successfully find a co-op, a 6-month internship, and teaches them professional skills, behavior interview skills, and technical interview skills
- Reviewed resumes of students in my section and mentored them throughout the co-op search process