Shang-Yun (Maggie) Wu

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OBJECTIVE

To seek a full-time software engineering position in the field of AI/Robotics and Machine Learning

SUMMARY

- 4 multidisciplinary internships in the field of software engineering, robotics and medical engineering
- 4+ years of research experience in various MIT labs (*CSAIL, Media Lab, Koch Cancer Institute*)
- Familiar coding languages include Python, MATLAB, Julia, PowerShell, C++, Java and Swift
- Co-author for 2 papers published under *Nature Communications* and *JASMS*
- Lab assistant for undergrad courses (*Intro to Comp Sci and Programming & Circuits and Electronics*)
- Good problem-solving skills, fast-learning, self-motivated, goal-oriented, and multi-cultural

EDUCATION

Massachusetts Institute of Technology (MIT)
Master of Engineering in *Electrical Engineering & Computer Science* (*EECS*) Expected: June 2020
Research Topic: Computer Vision and Machine Learning Model for Early Cognitive Disease Signal Detection
Bachelor of Science in *EECS* with Minor in *Mathematics* (GPA: 4.6/5.0) June 2019
Relevant Coursework: Machine Learning, Underactuated Robotics, Computer Vision, Assistive Technology, Computational Cognitive Science, Computer Systems Engineering, Algorithms, Signals, Numerical Analysis

INTERNSHIP EXPERIENCE

Applied Predictive Technologies, Mastercard Data & Service Team, Arlington VA Jun 2019 – Aug 2019
Software Engineering DevOps Continuous Integration & Continuous Deployment (CI/CD) Intern

- Automated security scan on Jenkins Job Builder via Foreman solution within the deployment pipeline
- Logged security vulnerabilities and alerted App team automatically via Splunk
- Developed multi-threaded, parallel scan process to asynchronously create Jira tickets via API

Amazon Robotics LLC, subsidiary of Amazon, North Reading MA Jun 2018 – Aug 2018
Advanced Robotics Software Development Engineering Intern

- Designed and optimized inverse kinematics trajectories via Drake software for UR10 robot manipulation
- Utilized MeshCat for 3D visualization and created simple UI to Drake software

Ethicon Inc., subsidiary of Johnson & Johnson, Somerville NJ Jun 2017 – Aug 2017
Analytical Characterization Thermal Lab Simulation Intern

- Conducted probabilistic analysis for x-ray diffraction via Python and created GUI for simple simulation

VIA Technologies, Taipei Republic of China (Taiwan) May 2016 – Jul 2016
Web Development Software Engineering Intern

RESEARCH EXPERIENCE

CSAIL Multimodal Understanding Group, Early Cognitive Disease Signal Detection Jul 2019 – Now

- Analyzed via computer vision eye-tracking signals to understand human cognitive process
- Modeled human cognitive process to detect early signals of degenerative cognitive disorders

Media Lab Personal Robots Group, Robot Reinforcement Learning Sep 2017 – Jun 2019

- Defined robot behaviors and affect-based learning policy for child-robot collaborative literacy game
- Implemented robot and tablet communication via ROS and data analysis tools via Python

Koch Institute Langer Lab, Design of Bioreactors for Tissue Engineering Jan 2016 – Jun 2017

- Engineered via CAD and 3D printed various bioreactors for human cell culturing

Media Lab Camera Culture Group, 3D Camera Web Development Aug 2015 – Jan 2016

- Enhanced 3D camera precision via MATLAB and displayed difference via webpage