JOSH MOAVENZADEH

EXPERIENCE

Jane Street, Summer 2019
Software Engineering Intern

RPC Logger
- Instrumented RPC library with automated logging
- Incorporated permissioning, service discovery, and alert monitoring

Postgres Log Consolidator
- Built an application for consolidating streams of Postgres log files
- Designed a memory-efficient data structure for aggregating summary statistics given time-interval queries

Aggression Risk Checks
- Implemented a redesign of the aggression check
- Developed a framework for testing different configurations against historical order flow

Facebook, Summer 2018
Software Engineering Intern

Goodwill Infra – Personalized Video Team
- Developed improvements for a distributed job scheduler
- Built an automated load test framework
- Redesigned and incorporated an alarm remediation system
- Created a UI for managing internal tool configs

IHMC Robotics, Summer 2017
Software Engineering Intern

Simultaneous motion planning for robotic arms
- Created a bidirectional RRT algorithm for trajectory generation
- Integrated 3D collision detection and obstacle avoidance
- Improved upon path smoothing and optimization techniques
- Began developing a real-time continuous planner

Multi-robot box pushing with mobile robots
- Built a controller API for autonomous mobile robot navigation
- Implemented a geometric path-forming algorithm

Carnegie Mellon SCS, Jan 2017 - May 2019
Teaching Assistant

- 11-785: Introduction to Deep Learning (Master's/PhD), Spring 2019
- 15-351/15-650: Algorithms and Advanced Data Structures, Fall 2018
- 15-213: Introduction to Computer Systems, Spring 2018
- 15-112: Fundamentals of Computer Science, Fall 2017, Spring 2017

EDUCATION

Carnegie Mellon University, Aug 2016 - May 2020
Bachelor of Science (B.S.)

- Statistics and Machine Learning | Computer Science (Minor)
- GPA: 3.7 / 4.0
- Dean's List: Fall 2016, Fall 2017 - Present

CONTACT

Phone: (978) 992-1172
Email: josh.moaven@gmail.com
Website: joshmoavenzadeh.com
Address: 5032 Forbes Ave
          SMC 6137
          Pittsburgh, PA 15213

SKILLS

- ✓ Python
- ✓ R
- ✓ C
- ✓ PHP/Hack
- ✓ Java
- ✓ HTML/CSS
- ✓ OCaml/SML
- ✓ PyTorch

PROJECTS

AR Climbing
- Interactive head-to-head game projected on rock climbing walls using Microsoft Kinect
- Finalist from 400+ submissions
- Received Judge's Choice Award from APT
- Featured on FloClimbing

CtrlCore
- Smart home hub with interactive projection display using Leap Motion
- TartanHacks finalist
- Received Rockwell Automation's Impact Award

COURSEWORK

- *10-703: Deep Reinforcement Learning
- 10-601: Intro to Machine Learning
- 36-402: Advanced Methods for Data Analysis
- *15-853: Algorithms in the Real World
- 15-210: Parallel and Sequential Data Structures and Algorithms

(* Currently enrolled)