RISHABH JAIN

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EDUCATION

Carnegie Mellon University May 2022

B.S. in Electrical and Computer Engineering with an Additional Major in Robotics, GPA: 3.7/4.0
Relevant Courses: Parallel Algorithms + Data Stuctures, Computer Systems, Computer Security, Digital Design

EMPLOYMENT

Lyft, Hardware Engineer Intern, Palo Alto, CA June 2020 - Current
- Simulating and optimizing Image Signal Processing (ISP) pipelines based on perception metrics
- Implementing an ISP and data logging system on an embedded linux board

Introduction to Computer Systems, Teaching Assistant, Pittsburgh, PA Jan. 2020 - May 2020
- Developed, deployed and maintained core course infrastructure with over 500 users
- Taught recitations, graded homeworks and hosted office hours for students
- Led exam question development team generating question objectives and templates

Carnegie Mellon University, Undergraduate Researcher, Pittsburgh, PA Sept. 2018 - Oct. 2019
- Developed a computer vision data analysis system for microscale robots
- Created a mathematical model using Python predicting mechanical properties based on DNA helix modifications
- Analyzed and classified simulation results based on desired mechanical properties for nano constructs

EKTO VR, Mechanical Engineering Intern, Pittsburgh, PA May 2019 - July 2019
- Designed and manufactured a lighter, smaller, smoother, and more efficient holonomic drive mechanism
- Fabricated and tested drive system components utilizing rapid prototyping principles

ACTIVITIES

Tartan Autonomous Underwater Vehicle Sept. 2018 - Current
- Developing computer-vision software for tracking path markers aiding with the AUV's navigation
- Testing and integrating sensors with the NVIDIA Jetson embedded computer
- Creating and testing a computer model of the submarine using Solidworks
- Fabricating and assembling the AUV and test environments

Cyberpatriot Team n0passwd Sept. 2014 - Mar. 2018
- Led my rookie team to achieve platinum (top 30%) status all four years we have competed
- Taught and mentored basic Linux system hardening to underclassmen
- Created bash scripts automating system hardening allowing time for solving harder vulnerabilities
- Solved forensics challenges which required a novel understanding of the Linux command-line interface and operating system

ACHIEVEMENTS

Top 10 Hack, Best Hardware Hack, Best Health Hack, *PennApps @ University of Pennsylvania* Sept. 2019

Summer Undergraduate Research Fellowship, *Carnegie Mellon University* May 2019

Finalist, *Intel International Science and Engineering Fair* May 2017

SKILLS

Python, C/C++, Embedded Systems, ROS, MATLAB, Verilog, Rapid Prototyping, SML