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
Technical Skills: C/C++, Python, Embedded Systems, Verilog, SML, ROS, Rapid Prototyping
Relevant Courses: Parallel Algorithms + Data Stuctures, Computer Systems, Computer Security, Digital Design

EMPLOYMENT

Lyft, Hardware Engineer Intern [Confidential], Palo Alto, CA June 2020 - Current
Hardware Engineer Intern on the Autonomous Vehicles Sensors team at Lyft Level 5

Carnegie Mellon University, Teaching Assistant, Pittsburgh, PA Jan. 2020 - Current
Teaching Assistant for 15-213 (Introduction to Computer Systems). The course provides a programmer's view of how computer systems execute programs, store information, and communicate.

- Developing, deploying and maintaining core course infrastructure with over 500 users
- Teaching recitations, grading homeworks and hosting office hours for students
- Leading exam question development team generating question objectives and templates

Carnegie Mellon University, Undergraduate Researcher, Pittsburgh, PA Sept. 2018 - Oct. 2019
The Microsystems and MechanoBiology Lab at Carnegie Mellon University studies form and function in micro and nanosystems developing mechanical systems, including sensors and actuators, that exhibit extreme mechanical properties.

- Developed a computer vision data analysis system for microswimmers
- 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
EKTO VR is developing a mobility solution that virtually transforms 10 by 10-foot spaces into limitless worlds for the over 10 million users in the $3B Virtual Reality market.

- 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, Systems Lead, Founding Member Sept. 2018 - Current
Tartan AUV is a newly founded interdisciplinary team of undergraduate students developing an autonomous submarine to compete in the annual RoboSub competition.

- 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, Team Captain and Linux Expert Sept. 2014 - Mar. 2018
A cybersecurity competition in which teams are tasked with securing the network and computers of a small company.

- 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