RISHABH JAIN

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EDUCATION

Carnegie Mellon University   Spring 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 [Confidential], Palo Alto, CA   June 2020 - Current
- Simulating and optimizing Image Signal Processor (ISP) pipelines based on perception metrics (Matlab)
- Implementing an ISP and data logging system on an embedded linux board for fleet data capture (C++)
- Optimizing data capture pipeline for increased quality and reliability (Python/C++)

Introduction to Computer Systems (15-213), Teaching Assistant, Pittsburgh, PA   Jan. 2020 - May 2020
- Developed, deployed and maintained core course infrastructure with over 500 users
- Taught recitations and held office hours on systems topics including machine-level code, memory, networking, and concurrency.
- 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

ACTIVITIES

Tartan Autonomous Underwater Vehicle   Sept. 2018 - Current
- Developing 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

PROJECTS

Torby   July 2020 - Current
Torby delivers frictionless audio lounges with a simple interface built around the call itself
- Developing and deploying REST APIs for accessing and storing user information on AWS
- Implementing secure authentication protocols protecting against man in the middle attacks

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

Languages: Python, C/C++, MATLAB, Verilog, SML
Frameworks: ROS, OpenCV, Embedded Systems, Rapid Prototyping, AWS Lambda