

Prava Dhulipalla

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EDUCATION

FRANKLIN W. OLIN COLLEGE OF ENGINEERING

B.S. Electrical and Computer
Engineering | 2016-2020

GPA: 3.94

Activities and Societies: Student
Government, Society of Women
Engineers, Honor Board, IgniteCS, Olin
Autonomous Boat Project Team Lead

COURSEWORK

Data Structures and Algorithms
Advanced Algorithms
Software Design
Software Systems
Technology, Accessibility, and Design
Foundations of Computer Science
Databases
Data Science
Computer Networks
Principles of Engineering
Quantitative Engineering Analysis I, II
Modelling and Simulation
Discrete Mathematics
Computer Architecture
Nonlinear Programming
Convex Optimization

SKILLS

LANGUAGES Java • Python • C++
C • OCaml • ROS • Verilog • R
Swift • Matlab • Mathematica
COMPUTER Linux • Ubuntu • Git
Arduino • Raspberry Pi
AWS • Android • iOS

PROJECTS

CLEW APP | Spring 2019

Worked with Professor Paul Ruvolo
to iterate upon an indoor navigation iOS
app for people who are blind or
visually-impaired. Worked in **Swift**.

ROBOTIC GRIPPER | Fall 2017

Worked with a multidisciplinary team of
engineering students to build a robotic
gripper capability of variable grip strength.
Worked in **C++**.

TECHNICAL EXPERIENCE

SONOS | PROJECT MANAGER, INDEPENDENT CONTRIBUTOR

August 2019 - August 2020 | Needham, MA

- Worked on a team of five Olin students and a variety of company engineers to optimize the Sonos product manufacturing test process
- Utilized a variety of data science and machine learning approaches, including but not limited to principal component analysis, logistic regression, and convolutional neural networks (trained on AWS)
- Project culminated in the design and implementation of a software pipeline in **Python** to provide test optimization insights

AMAZON ROBOTICS | SOFTWARE DEVELOPMENT ENGINEER INTERN

May 2019 - August 2019 | North Reading, MA

- Worked on the Robotic Movement Control and Coordination team, responsible for the allocation and usage of fulfillment center robots
- Developed a feature in **Java** to allow for specialized robotic movement to optimize fulfillment center space and time utilization
- Performed the role of both a feature designer and developer to ensure success in both emulated and simulated platforms

VISIBLE LIGHT COMMUNICATIONS LAB | STUDENT RESEARCHER

June 2017 - June 2019 | (Olin College) Needham, MA

- Worked on a hybrid RF-visible light communications system under the guidance of Professor Siddhant Govindasamy
- Research culminated in two research papers presented at two different communications conferences (2019 and 2020)
- Worked on a variety of algorithms in **Matlab** to further functionality of the hybrid system, which required knowledge of communication theory and signal processing

OTHER EXPERIENCE

EDUCATOR ROLES | STUDENT INSTRUCTOR AND TEACHING ASSISTANT

Fall 2017 - Spring 2020 | (Olin College) Needham, MA

- Served as a teaching assistant for: Introduction to Sensors, Instrumentation, and Measurement, Quantitative Engineering Analysis I and II (comprised of multivariable calculus, linear algebra, mechanics, signals and systems, and dynamics), Machine Learning, and Software Systems
- Served as an instructor for a student-led class in Data Structures in Algorithms taught in Spring 2019
- Served as a curriculum developer and instructor for an Advanced Algorithms course taught in Spring 2020
- Roles required knowledge of **Matlab**, **Python**, **Java**, and **C**

RESEARCH AT OLIN COLLEGE | STUDENT RESEARCHER

Fall 2016 - Spring 2020 | Needham, MA

- Worked in the student robotics lab on a variety of semester projects, including underwater autonomous submersibles, autonomous robotics to traverse areas near volcanoes, and a multi-sensory robotic arm project
- Worked with Professor Samantha Michalka on brain-computer interface research, researching signal processing and machine learning applications
- Research required knowledge of **Matlab**, **Python**, **C++**, and **C**