

# 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 multidiscip 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 Siddhartan 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 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**