

# MAITREYEE JOSHI

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## EDUCATION

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### CARNEGIE MELLON UNIVERSITY

May 2018

- Bachelor of Science in Computer Science, Minors in Drama, International Relations & Politics
- **Honors:** Dean's List 2016
- **Relevant Coursework:** Topics in Law: 1st Amendment, US Foreign Policy and Interventions in World Affairs, Judicial Politics and Behavior, Comparative Politics, Theories of International Relations, Political Behavior, Machine Learning (PhD), Algorithms

## SKILLS

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**Technical Skills:** Python, C++, Java, Objective-C, Javascript, Typescript, Matlab, HTML5, SQL

**Language Skills:** Spanish, Marathi, Hindi

## EXPERIENCE

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### MICROSOFT, *Software Engineering/Product Management Intern*

May 2016 – August 2016

- Designed and developed custom visual on Power BI to help the visually impaired and blind understand their financial data
- Wrote design guidelines to ensure that all data visualizations were in compliance with accessibility standards

### MEDIUM ONE, *Software Development Intern*

June 2015 – August 2015

- Optimized protocol buffer implementation to increase speed of data exchange

### WALT DISNEY IMAGINEERING, *Research and Development Lab Assoc.*

November 2014 – March 2015

- Developed iOS application, using Objective-C and XCode, to read in and parse data stored on RFID chips

### BLINDWALK, *CEO and Founder*

June 2013 – Present

- Designed and developed indoor navigation system app for the blind, using Objective-C and XCode, that uses sound cues to allow the blind to navigate through virtual maps of indoor buildings
- Decreased number of attempts it takes for a blind individual to independently navigate through a building from 30-35 to 5-6

### INVENIO STEM JOURNAL, *Coeditor-in-Chief and Cofounder*

August 2013 – June 2014

- Cofounded STEM Research Journal to offer high school students the opportunity to publish and share their original research work

### STANFORD HUMAN-COMPUTER INTERACTION LAB, *Research Intern*

July 2013 – January 2014

- Worked with team of graduate students to develop HTML/Javascript/SQL app to census the demographic and cognitive skills of workers on Amazon's Mechanical Turks

### STANFORD NEUROMUSCULAR BIOMECHANICS LAB, *Research Intern*

June 2013 – August 2013

- Designed and built hardware braces to aid in proper muscle placement for human experimentation
- Programmed Matlab scripts to analyze muscle sarcomere data

## LEADERSHIP

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### UNDERGRADUATE STUDENT SENATE, *Campus Life Committee Chair*

August 2015 - Present

- Elected to represent over 6,000 undergraduates in student government in issues pertaining to student life
- Led team of 8 to improve civic, community, & campus engagement, mental health awareness, sexual assault prevention on campus
- Developed, implementing policy to require mental health and sexual assault prevention training for 400 student leaders

### UNICEF, *Treasurer and Co-Fundraising Chair*

August 2015 - Present

- Hosted fundraisers that raised collectively over \$1,200 for UNICEF

### INTRODUCTION TO COMPUTER SYSTEMS, *Teaching Assistant*

August 2016 - Present

- Led weekly recitations for a group of ~30 students and held office hours for a class of 400+ students

### THE BORGEN PROJECT, *Regional Director*

July 2013 - December 2013

- Met with local congressional leaders and mobilized locals to lobby for key poverty reduction legislation

## INDEPENDENT PROJECTS

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### TOUCHPROSTHETICS: *Bringing Tactile Sensations to Upper Extremity Prosthetics Using Haptic Devices*

- Built tactile feedback system that enables amputees to feel tactile sensations, such as pressure, through their prosthetic arms
- Awards: 1<sup>st</sup> place at Synopsys Science Fair

### CANCER MUTATIONS DETECTOR: *Identifying DNA Mutations That Cause Brain Tumor Glioblastoma Multiforme Using a Biclustering Algorithm*

- Developed and implemented C++ biclustering algorithm to identify probable causes of brain tumors in cancer patients