

# Chetan Sharma

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## EDUCATION

### MIT

CANDIDATE FOR BS IN EECS

MINOR IN MECHE

Expected May 2019 | Cambridge, MA

Cum. GPA: 4.3

### WESTVIEW HIGH SCHOOL

Grad. May 2015 | San Diego, CA

Cum. GPA: 4.3

## COURSEWORK

### EECS

Machine Learning

Autonomous Vehicles

Algorithms

Software Construction

Control System Design

Signals and Systems

Analog Electronics Lab

Computation Structures

### MECHANICAL ENGINEERING

Medical Device Design (Graduate)

Dynamics and Control

Mechanics and Materials

Mechanical Engineering Tools

MATLAB Numerical Computation

Differential Equations

## SKILLS

### Software Packages

ROS • Altium Designer • LTSpice •

Solidworks • Autodesk Inventor •

LabView • Flask • Pandas • Office

### Programming Languages

Python • Java • MATLAB •  $\text{\LaTeX}$  •

CSS • HTML • JavaScript

### Fabrication

Machine Tools • NC Equipment •

Board Fab

## EXPERIENCE

### NVIDIA CORPORATION | RF VALIDATION INTERN

May 2018 - August 2018 | Santa Clara, CA

- Created an internal analytics tool to automate RF data visualization
- Eliminated a large portion of the prior RF validation pipeline
- Took full ownership of a project while coordinating the needs of multiple users

### DISTRIBUTED ROBOTICS LAB | RESEARCHER

September 2017 - Present | Cambridge, MA

- Designed novel autonomous robot capable of 2D fabrication.
- Previously analyzed and optimized structure of shearing auxetic materials.
- Published paper on latter topic; expecting to publish paper on former this year.

### AMAZON ROBOTICS | GLOBAL OPERATIONS INTERN

May 2017 - August 2017 | Seattle, WA

- Optimized automation technologies with projected savings of \$100,000
- Automated analysis on 200k data points to inform purchasing decisions
- Coordinated multiple disconnected groups to enforce standard practices

### NASA JET PROPULSION LAB | POWER ELECTRONICS INTERN

May 2016 - Aug 2016 | Los Angeles, CA

- Created & tested power subsystems for Mars 2020 instrumentation
- Designed high-reliability switched regulators & sourced specialty components
- Performed failure mode analysis on high-reliability boards and assemblies

## PERSONAL PROJECTS

### BATTLEBOTS SEASON 4 COMPETITOR | Ongoing

Designing a 250lb combat robot for Discovery Channel's Battlebots television show (one of 90 teams accepted out of 100s). Managing design, construction, and funding of robot.

### DORM KITCHEN CLEANLINESS WEB APP | July 2018 - August 2018

Created a secure Flask web application that allows dormitory residents to monitor kitchen cleanliness and identify individuals that leave behind dishes.

### FACE-TRACKING AUTOMATIC VORTEX RING LAUNCHER |

January 2018

Designed and programmed a 40lb machine that would track the faces of passerby and fire vortex rings in their direction. Project required extensive research into vortex ring formation theory. OpenCV, MATLAB, and Solidworks were used in design.

### ROBOTIC HOTDOG VENDING MACHINE | January 2016

Built a fully automated hotdog vending machine during MakeMIT 2016. The machine was capable of cooking a hotdog, toasting a bun, and dispensing condiments without any human intervention. Won first place at MakeMIT.

## AWARDS

2018	First Place	QVC Prize @ HackMIT Hackathon
2017	Third Place	Assistive Technologies Hackathon
2017	Third Place	MakeMIT Hardware Hackathon
2016	First Place	MakeMIT Hardware Hackathon