

Chetan Sharma

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EDUCATION

MIT

CANDIDATE FOR MASTERS IN EECS

BS IN EECS '19

MINOR IN MECHE

Cambridge, MA

Cum. GPA: 4.4

WESTVIEW HIGH SCHOOL

Grad. May 2015 | San Diego, CA

Cum. GPA: 4.3

COURSEWORK

EECS

Advances in Computer Vision

Computational Photography

Machine Learning

Autonomous Vehicles

Algorithms

Software Construction

Control System Design

Signals and Systems

Analog Electronics Lab

Computation Structures

MECHANICAL ENGINEERING

Biomimetic Robotics (Graduate)

Precision Machine Design (Graduate)

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

Programming Languages

Python • Java • C++ • MATLAB • \LaTeX •

CSS • HTML • JavaScript

Fabrication

Machine Tools • NC Equipment •

Board Fab

LINKS

Portfolio: cactode.club

GitHub: github.com/cactode

LinkedIn: [linkedin.com/in/cactode](https://www.linkedin.com/in/cactode)

EXPERIENCE

ALFA LAB @ CSAIL | RESEARCHER

August 2019 - Ongoing | Cambridge, MA

- Researching the prediction of malware evolution over time
- Exploring possibility of using data-driven methods to predict future strains

ANDURIL INDUSTRIES | MECHANICAL & CONTROLS INTERN

May 2019 - August 2019 | Santa Ana, CA

- Created newest revision of high-reliability pan-tilt unit for defense applications
- Handled all mechanical/electrical/controls/planning aspects of design
- Used computer-driven optimization to increase positioning speed by 3x

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 @ CSAIL | RESEARCHER

September 2017 - January 2019 | Cambridge, MA

- Designed novel autonomous robot capable of 2D fabrication using a jigsaw
- Optimized structure of shearing auxetic materials (paper published)

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

PERSONAL PROJECTS

BATTLEBOTS SEASON 4 COMPETITOR | December 2018 - April 2019

Worked with a team to build a 250lb combat robot for Discovery Channel's Battlebots television show. Contributed to design, manufacturing, and funding of robot. Robot placed highly in final rankings.

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.

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.

AWARDS

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|------|-------------|----------------------------------|
| 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 |