# Chetan Sharma

https://cactode.club/ schetan0g8@gmail.com | 858-829-5598 | Full-time candidate

## **EDUCATION**

#### **MIT**

MASTERS IN EECS '20 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 (Grad) Computational Photography (Grad) Machine Learning Autonomous Vehicles Algorithms Control System Design Analog Electronics Lab

#### **MECHANICAL ENGINEERING**

Biomimetic Robotics (Grad)
Precision Machine Design (Grad)
Medical Device Design (Grad)
Dynamics and Control
Mechanics and Materials
MATLAB Numerical Computation

# **SKILLS**

Software Packages
ROS • Altium Designer • LTSpice
Solidworks • Autodesk Inventor
LabView • Flask • Pandas
Programming Languages
Python • Java • C++ • MATLab

LTEX • CSS • HTML • JavaScript
Fabrication
Machine Tools • CNC Equipment
Board Fab

# LINKS

Portfolio: cactode.club GitHub: github.com/cactode LinkedIn: linkedin.com/in/cactode

### **EXPERIENCE**

#### ALFA LAB @ CSAIL | Machine Learning Researcher

August 2019 - Ongoing | Cambridge, MA

- Researching the prediction of malware evolution over time
- Exploring data-driven methods to predict future strains and protect against them

#### **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** | DATA ENGINEERING 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 small 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.

#### **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.

#### **CNC ROUTERS** | March 2012

Designed and constructed two Computer Numerical Control routers capable of automatically machining flat substrates. Each machine was designed using CAD, CAM, and industrial design techniques on a budget of only \$400.

## **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