Chetan Sharma

https://cactode.club/
schetan098@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
PyTorch • ROS • Altium Designer
LTSpice • Solidworks
Autodesk Inventor • LabView
Flask • Pandas
Programming Languages
Python • Java • C++ • MATLab
LaTeX • HTML • JavaScript • Halide
Fabrication
Machine Tools • CNC Equipment
Board Fab

LINKS

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

EXPERIENCE

ANDURIL INDUSTRIES | R&D Engineer
July 2020 - Ongoing | Santa Ana, CA
- Creating newest revision of high-reliability pan-tilt unit for defense applications
- Managing mechanical/electrical/controls/planning aspects of design
- Using computer-driven optimization to increase positioning speed by >3x

CENTER FOR BITS AND ATOMS @ MIT | Robotics Researcher
August 2019 - July 2020 | Cambridge, MA
- Researched the usage of online machine-learning techniques in CNC milling
- Created a CNC controller that could automatically model the milling process
- Enabled the system to optimize cutting parameters in real-time

NVIDIA CORPORATION | Software / 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 | Robotics 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 | Operations / Data Engineering 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

DORM KITCHEN CLEANLINESS WEB APP | August 2018
Created a secure Flask web application that allows dormitory residents to monitor kitchen cleanliness and identify individuals that leave behind dishes.

TWITCH-CONTROLLED CRANE GAME | September 2018
Programmed and constructed a 10ft x 10ft super-sized claw machine for HackMIT. Machine parsed commands from Twitch chat and allowed for teleoperation of crane. Won QVC First Place prize; demoed to their executives.

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.

More projects are described in portolio

AWARDS

2019	Finalist	BattleBots Season 4
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