

HRUSHIKESH VAIDYA

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EDUCATION

University of Southern California
Master of Science, Computer Engineering

August 2024 - May 2026

College of Engineering, Pune
Bachelor of Technology, Electronics & Telecommunication Engineering
(Minor in Computer Engineering)

August 2020 - May 2024

Overall GPA: 8.93/10

SKILLS

Programming Languages:	Python, JavaScript, Java, C, C++
Technologies:	Django, AWS, Arduino, MathJax, LaTeX
Tools:	MATLAB, Git, GitHub, Numpy, Pandas, SQL
Areas of Expertise:	Algorithm Design, API Design, Client-Server Design, Data Structures, Machine Learning

COURSEWORK

Configurable Logic & Processor Design, Object Oriented Programming & Design, Data Structures & Algorithms, Programming for Problem Solving, Microcontrollers & Applications, Digital Communication Systems, Data Communication & Networking, Machine Learning, Introduction to Artificial Intelligence

INTERNSHIPS

Fullstack Developer, Wide Wings Media
July 2023 - July 2024

- Redesigned the existing website for ticketkhidakee.com, an online event-hosting application.
- Implemented a ticket booking system, payment gateway, user authentication system, and event management system.
- Designed a robust cloud architecture for handling bursty traffic patterns, deployed on AWS resources.
- Configured global CDN on AWS CloudFront and designed a fine-tuned caching policy

Software Development Intern, Mastercard
May 2023 - July 2023

- Wrote a Java application to translate between protocol buffers and AVRO based schemas for event-driven applications.
- Packaged the Java application as a JAR and hosted on mastercard's internal artifact repository
- Wrote documentation for the implemented API

Student Researcher, COEP IDEA LABS
September 2022 - February 2023

- Part of the Data Acquisition & Robotics team.
- Worked in an interdisciplinary team to build data acquisition robots for collecting leaf and soil data for soyabean plants in Indian farms.

- Designed a rover-like robot to be driven between rows of crops, and a hand-held device to capture data for farms too dense for the rover.

PROJECTS

Chess-playing Robotic Arm

Final year thesis project. A general purpose robotic arm that uses a custom built chess engine and a custom built chess board. The arm is able to play a complete game of chess with a person sitting across the table with no external input needed.

MJXGUI

A WYSIWYG equation editor for the web, with a GUI for creating equations similar to the one offered by Google Docs or Microsoft Word. Includes an API for conversion of created equation into LaTeX for storage and rendering using tools like MathJax. Used on ClassBerg.

ClassBerg

ClassBerg is an online educational platform that provides coaching classes with a student testing framework, a question database, virtual classrooms, and student analytics. This website was selected for incubation by COEP's technology incubator - the BHAU Institute. Developed in Django & Python, deployed on Heroku.com

chessengine

A chess engine with no dependencies written in Python. Features a bitboard representation, move-generation API, PGN parsing, opening book, and alpha-beta pruned search. Later used in my final year thesis project to build a chess playing robotic arm.

CERTIFICATIONS

Deep Learning Specialization

Coursera

A specialization of 5 courses on deep learning, CNNs, RNNs, and structuring ML projects, offered on Coursera by deeplearning.ai

TensorFlow Developer Professional Certificate

Coursera

A series of 4 courses on developing CNNs, NLP applications, and neural networks using TensorFlow, offered on Coursera by deeplearning.ai

CO-CURRICULAR WORK

Django

Contributed patches, bug-fixes, and new feature additions to Django. Submitted a GSoC 2022 proposal for adding rate-limiting to Django core and a second GSoC 2023 proposal to include CORS and CSP support in Django core.

COEP Webteam

Maintained the college website and its on-prem servers. Managed a Drupal-based CMS and coordinated with college clubs, faculty, and students to keep the website up to date.

EXTRA-CURRICULARS

Tennis Player

Represented my school, D.A.V. Public School in tournaments across India. Part of COEP's men's tennis team. Played in the All India Tennis Association. Represented D.A.V. Public School in the "Schoolympics" competition - a national level event involving multiple sports and schools from across India.