

Harshil Jhaveri

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EDUCATION

University of Southern California

August 2021–May 2023

Master's in Computer Science (Coursework in Algorithms, Artificial Intelligence, Machine Learning and Databases)

Dwarkanadas J. Sanghvi College of Engineering, University of Mumbai

August 2017–June 2021

Bachelor of Engineering, Computer Engineering, CGPA (9.67/10)

EXPERIENCE

CLOUDERA, SANTA CLARA, CA | Software Engineer Intern

May 2022–August 2022

- Created services to bolster authorization and authentication for SSL interactions with Hadoop clusters on Apache Knox.
- Automated client certificate authentication and configured composite provider authorization. Executed a header-based identity maintenance plugin, and authorization bearer services, and deployed packages to production via Gerrit.
- Resolved escalations in identity management service integration with Azure public cloud followed by automation tests.

FINOVATE CAPITAL, MUMBAI, INDIA | Software Development Intern

June 2021–July 2021

- Introduced AI based generation of invoices, and transfers to and from FTP servers. Reduced manpower required by 300%, and increased auditing accuracy twofold.
- Led E2E backend and frontend stack development of an interactive web app used by MSME's for supply chain financing.

CMS COMPUTERS INDIA, MUMBAI, INDIA | Data Science Intern

December 2019–January 2020

- Pioneered a Vision-based traffic control system, detecting and estimating vehicle speed from live feed transitioning from traditional ultrasonic sensors. It also characterized automobile's coordinates and type at offence time.
- Executed automatic red signal violation detection and penalty generation with 87% accuracy trained on a YOLO model.

ATOM TECHNOLOGIES INDIA, MUMBAI, INDIA | Software Development Intern

June 2019–July 2019

- Developed a full stack E-Commerce platform to offer purchase and online sale of payment models to 150,000+ vendors.
- Devised a multithreading system for allowing same user ID transactions on existing payment gateway; it facilitated multiple simultaneous payments from the same user, substantially reducing delay.

ACADEMIC PROJECTS

Patient Holistic Care Portal

(Made using PyTorch, Django, Angular, VanillaJS, SIP.js and Docker)

- Built a smart recommender for patients based on symptoms, with WebRTC based video consultations with doctors.
- Provides a chatbot to offer support and preserve patient's mental health. Supported by an interactive dashboard to store patient history, allergies and previous medication records.

Smart Disaster Rescue and Mitigation System

(Made using TensorFlow, NodeJS, ExpressJS and MongoDB)

- Disaster Management Platform, with dedicated real-time chatroom for updates, offline SOS triggering, safest route computation to nearest police station, and toll payment through app.
- Available as a web and mobile app, also containing a dedicated API for future development use.

Autonomous Agents for playing Go and Doom

(Made using Pygame, Numpy, and SQL)

- Built two autonomous agents from scratch using deep reinforcement learning and alpha-beta pruning techniques, playing against a CPU and achieving a win rate of over 90.8%.

RESEARCH EXPERIENCE

Autoencoder Embedding, Segmentation and Classification of Apparel Images - *IEEE Xplore*

Applications of visual search, layering, detection, categorization and synthetic generation to over 8 million apparel images.

SKILLS

- **Languages and Operating Systems:** Python, Java, C, JavaScript, R, Linux, MacOS, Windows
- **Web Development:** Git, Django, Flask, Spring, Node.js, PHP, React, Angular, MySQL, MongoDB, Docker, Kubernetes
- **Libraries and Frameworks:** OpenCV, TensorFlow, PyTorch, Keras, Theano, AWS S3 and Lambda

LEADERSHIP & INVOLVEMENT

- **Apache Knox Open Source:** Resolved 13 JIRAs of composite auth provider names and client certificate authentication.
- **Shrimad Rajchandra Love and Care:** Built and maintained main website, created visual dashboards to raise and track funds of over \$30 million for Covid-19, created a portal to assess and store data about volunteering efforts worldwide