

SHRUTI DALVI

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EDUCATION

University of Southern California, Viterbi School of Engineering
Masters of Science in Computer Science (Artificial Intelligence)
Relevant Coursework: Robotics, Web Technologies

Los Angeles, CA
August, 2024 - June, 2026

University of Mumbai
Bachelor of Engineering in Computer Engineering
Relevant Coursework: Data Structures, Analysis of Algorithm, AI, NLP, Big Data Analytics

Mumbai, India
August, 2020 - June, 2024
CGPA: 3.87/4

SKILLS

Programming Languages: C, C++, Python, Java, SQL, HTML, CSS, JavaScript and MATLAB

Database Management & Cloud Services: NoSQL, MongoDB, PostgreSQL, Google Cloud Platform, Azure

Tools & Frameworks: React, Angular, Node.js, Express.js, PHP, Django, Flutter, Hadoop, Apache Spark, Bootstrap, Docker, Git

Machine Learning: Deep Learning, SciPy, NumPy, Pandas, Pytorch, Scikit-Learn, OpenCV, ETL, NLP, fine-tuning LLM, Pattern recognition, Regression Analysis, Model Optimization, Statistical Modelling, Quantitative Analysis, GenAI

RESEARCH & WORK EXPERIENCE

Software Developer & Research Intern, Tata Institute of Fundamental Research, India

December 2023 – March, 2024

- Led the design and development of a blockchain-based chat application using **ReactJS** for the frontend and **Express JS** for backend integration, supporting secure text and multimedia communication for **100+ users**.
- Implemented **Hyperledger Fabric** for authentication, chat management, and encryption, achieving **100% data immutability** and improving transaction speeds by **30%**.
- Authored a research paper on the "Data Security Using Blockchain" project, which is set to be published at the **IEEE International Conference on Blockchain and Data Security (ICBDS) 2024**.

AI Research Intern, Indian Institute of Management, Mumbai, India

May, 2023 – December, 2023

- Worked on a research project focused on Humanitarian Logistics and Supply Chain Management using AI, Including deep learning model implementation.
- Applied Long Short-Term Memory (**LSTM**) neural networks to forecast and optimize supply chain operations, improving model performance through continuous evaluation and fine-tuning.
- Played a key role in collecting and cleaning data, ensuring it was accurately prepared for deep learning models. This meticulous data preparation led to an **8%** increase in model efficiency and performance.

Database Administrator Intern, Rawfront Solutions, Mumbai, India

January 2023 – April 2023

- Managed database operations using SQL Server. Performed data extraction, manipulation, and analysis through SQL queries, including joins, subqueries, and aggregate functions, to generate detailed reports and insights for business decision - making.

PROJECTS

Smart Wearable for Hearing Impaired

- Developed a smart wearable device** using **Raspberry Pi, Python, and TensorFlow**, incorporating an **ANN model with Keras and MFCC** to classify critical sounds like car horns and sirens with 99.265% accuracy.
- Designed and integrated a [mobile application](#)** using **Flutter and Firebase** for real-time speech-to-text conversion and haptic alerts, enhancing safety and situational awareness for users.
- Received a patent from the DIPP, Government of India for this innovation in September 2023.

Weather Cast Application

- Spearheaded the development of a weather forecasting mobile app using **Android Studio**, utilizing **XML** for the front-end and **Java** for the back-end, while incorporating historical data analysis.
- Published a research paper titled "[WeatherCast: Application that Provides Real Time Weather](#)" in the September 2022 issue (Vol. 12, Issue 9) of the IJERA Journal in the Year 2022. ISSN NO: 2248-9622

LEADERSHIP & ACHIEVEMENTS

- Senior Deputy Cultural Secretary, VESIT (2022-2023):** Managed cultural events, logistics, and volunteer teams for seamless execution.
- Sports In-charge, VESIT (2021-2022):** Organized sports events, ensuring smooth and timely operations.
- Secured **1st** position in Techsparks project presentation competition held on 5th April 2023 at Fr. Conceicao Rodrigues Institute of Technology, India for the project titled SOUNDMATE.