

NUPUR ABHIJIT DASHPUTRE

dashputr@usc.edu | (213) 994-7674 | Los Angeles, CA

[LinkedIn](#) | [Portfolio](#) | [GitHub](#)

EDUCATION

University of Southern California

Los Angeles, CA

Master of Science in Computer Science – Data Science

August 2024 – (Exp.) 15th May 2026

Related Coursework: Analysis of Algorithms, Applied NLP, Database Systems

MIT – World Peace University

Pune, India

Bachelor of Technology in Computer Science Engineering

August 2020 – June 2024

Related Coursework: Data Structures, Distributed Processing, Machine Learning, Software Engineering, Big Data

TECHNICAL SKILLS

Frontend: React, Next.js, HTML, CSS, JavaScript, Tailwind CSS

Backend & API's: Node.js, Express, Flask, FastAPI, REST APIs

AI & ML: PyTorch, Tensorflow, Scikit-Learn, Numpy, Pandas, Seaborn, Scipy, LangChain, OpenAI APIs

Databases: MongoDB, MySQL, PostgreSQL, SQLite

Languages & Tools: Python, C++, Java, Docker, AWS, GCP, Git, CI/CD, AI Assist Tools (GitHub Copilot, Cursor AI)

PROFESSIONAL EXPERIENCE

Sigma Healthsense

Los Angeles, CA

Software Development Engineer Intern

June 2025 – August 2025

- Engineered a real-time patient monitoring platform streaming RTSP camera feeds into Dockerized microservices on GCP, enabling instant anomaly and incident alerts and reducing response time by 35%.
- Optimized end-to-end CV pipelines for scalability and accuracy in production, collaborating with domain experts to refine detection performance.

USC Viterbi School of Engineering

Los Angeles, CA

Graduate Research Assistant

September 2024 – January 2025

- Preprocessed and analyzed 12,000+ OCT retinal scans across 5 Diabetic Retinopathy stages using CLAHE, edge detection, and vessel masking to enhance microaneurysm visibility for computer vision model training.
- Experimented with YOLO and ImageNet-based architectures, incorporating few-shot and zero-shot learning techniques to explore automated diabetic retinopathy stage classification and early risk prediction in younger patients.

Rolls Royce Power Systems AG

Pune, India

Data Analyst Intern

January 2024 – June 2024

- Analyzed 5M+ rows of Selective Catalytic Reduction sensor data from marine diesel engines; built ARIMA models with 95%+ accuracy (RMSE: 0.05) for predictive maintenance.
- Automated reporting workflows with Python and SQL, cutting analysis time by 75%, and delivered dashboards utilized by field engineers and senior managers, that helped reduce ferry downtime by 20% and cut maintenance costs.

PROJECTS

Stock Data ETL with Automated Scheduling and Reporting

August 2025 – Present

- Built and automated an ETL pipeline in Python to ingest and process 2,000+ daily stock price records across 5 tickers from Yahoo Finance, implemented features (returns, moving averages, volatility), and stored them in a structured SQLite warehouse for downstream analysis.
- Automated daily reporting workflow using Windows Task Scheduler to generate summaries of top gainers/losers with 100% reproducibility, version-controlled via GitHub to ensure scalability and collaboration.

GlobaLens – See Beyond the Headlines

May 2025 – June 2025

- Designed AI summarization & geospatial clustering pipelines (Python, Spark, GCP) processing 100K+ news/day, reducing insight discovery time from hours to minutes.
- Built a React-based interface for client use, integrated with GCP and MongoDB Atlas for interactive global news exploration.

PUBLICATIONS & PRESENTATIONS

- An Efficient IoT-Blockchain Sharding using Frequently Transacting Sender and Receiver Information | IEEE | 2024
- Artificial Intelligence Application in Personalized Fintech | Kepes Journal | 2023

LEADERSHIP & EXTRA-CURRICULARS

Mentor, Viterbi Graduate Mentorship Program

July 2025 – Present

- Guided incoming Computer Science graduate students on academic planning, research opportunities, and campus resources, fostering smoother transition and stronger peer connections.

Member, Society of Women Engineers

December 2024 – Present

- Increased chapter engagement by 30% through targeted event outreach, social media campaigns, and digital initiatives, expanding participation across the engineering community.