NUPUR ABHIJIT DASHPUTRE
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LinkedIn | Portfolio | GitHub

EDUCATION

University of Southern California **Los Angeles, CA**
Master of Science in Computer Science – Data Science Expected Graduation – May 2026
Related Coursework: Analysis of Algorithms, Database Systems, Applied NLP

MIT – World Peace University **Pune, India**
Bachelor of Technology in Computer Science Engineering August 2020 – June 2024
Related Coursework: Data Structures, Web Development, Machine Learning, Data Mining

TECHNICAL SKILLS

Languages & Frameworks: Python, Java, JavaScript, SQL, React, Node, Express.js, Flask, PyTorch, TensorFlow, Pandas, Scikit-Learn, NumPy, OpenCV
Databases & Tools: MySQL, MongoDB, PostgreSQL, Postman, CI/CD, Git (version control)

PROFESSIONAL EXPERIENCE

Sigma Healthsense **Los Angeles, CA**
Data Science Intern June 2025 – Present

- Currently developing a greenfield AI system designed for comprehensive hospital monitoring, focusing on enhancing patient safety and optimizing hospital workflows.
- Engaged in creating a hybrid MVP (Web App + Computer Vision) by integrating MERN stack and GCP for real-time patient status and task management, aiming to provide actionable insights and reduce administrative burden on clinical staff.

Rolls Royce Power Systems AG **Pune, India**
Data Analyst Intern January 2024 – June 2024

- Executed comprehensive data analysis and cleaning techniques on operational equipment data, structuring datasets for predictive modeling.
- Developed a time-series regression model that achieved an RMSE of 0.05, enhancing prediction accuracy and providing data-driven insights for proactive maintenance and operational efficiency.

PUBLICATIONS & PRESENTATIONS

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

PROJECTS

Speech Emotion Recognition for Enhanced AI Assistant Experience January 2025 – April 2025

- Engineered a real-time multimodal emotion recognition system using PyTorch, integrating a 1D CNN + Bi-LSTM for audio and DistilBERT for text, achieving high accuracy.
- Integrated the system with Llama 2 and React as frontend to generate context-aware and emotionally intelligent responses, demonstrating advanced context handling and prompt engineering for AI assistants.

Reinforcement Learning-based 'Go' Game Playing Agent September 2024 – November 2024

- Created an intelligent Go-playing agent optimized for a 5x5 board to reduce state space complexity.
- Implemented and evaluated Q-learning and Alpha-Beta Pruning algorithms to enhance decision-making and strategic play.

Alzheimer's Disease Detection February 2024 - May 2024

- Trained classification models on the ADNIMERGE dataset, performing extensive Feature Engineering to eliminate irrelevant features from genetic and biomarker data.
- Achieved 94.7% accuracy with an XGBoost classifier, demonstrating proficiency in applying Machine Learning algorithms for medical data analysis.

LEADERSHIP & EXTRA-CURRICULARS

Team Member, Society of Women Engineers December 2024 - Present

- Drove a 30% increase in engagement for the chapter through strategic social media campaigns and event promotion.