

Adithya Sudhindra

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Education

University of Southern California

Jan 2025 – Dec 2026

Master of Science in Computer Science, GPA: 3.74/4.0

Los Angeles, CA

- Coursework: Analysis of Algorithms, Operating Systems, Distributed Systems, Information Retrieval and Web Search Engines, Machine Learning for Data Science, Applied NLP, Foundations of AI

JSS Academy of Technical Education

Aug 2019 – Jun 2023

Bachelor of Engineering in Computer Science, CGPA: 9.24/10.0

Bengaluru, India

- Coursework: Data Structures, Web Technology, Mobile Application Development, Database Management Systems, Big Data Analytics, NoSQL Database, Digital Image Processing, Data Mining and Data Warehousing

Technical Skills

Languages: Python, Java, C, C++, SQL, JavaScript, Kotlin, R

Frameworks & Tools: Django, Flask, Streamlit, Docker, AWS, GCP, Java EE, Maven, Git, Jira, Postman, React, Node.js

ML & AI Libraries: TensorFlow, PyTorch, Scikit-learn, LangChain, OpenCV, NumPy, Pandas, Matplotlib, Seaborn, Statsmodels

Databases: MySQL, PostgreSQL, MongoDB, Firebase, Hadoop, VectorDB

Testing & Methodologies: JUnit, CI/CD, Agile Scrum, TDD

Areas of Expertise: Full-Stack Development, Applied Machine Learning, Computer Vision, Generative AI, Retrieval-Augmented Generation (RAG), Cloud-Native Microservices, Scalable and Distributed Architectures

Experience

Mercedes-Benz Research and Development India

Jul 2023 – Dec 2024

Consultant (Software Developer)

Bengaluru, India

- Designed, implemented, and deployed **15+ scalable full-stack features** for a distributed Java enterprise system using **JDBC, EJB, and Primefaces**, enhancing performance for **thousands of daily users**.
- Delivered sprint goals **25% ahead of schedule** by optimizing Agile workflows and enhancing team coordination, improving overall development velocity.
- Engineered an **LLM-powered documentation system** using GPT-4o, Ada API, and Streamlit; increased user help-file engagement by **30%**.
- Modernized a **17-year legacy codebase** by introducing modular architecture, integrating **CI/CD pipelines and JUnit-based automated testing**, ensuring 100% production integrity and zero-downtime releases.

Saigeware Technologies Pvt Ltd

Feb 2023 – Apr 2023

AI and Data Science Intern

Bengaluru, India

- Performed **VAE-based feature extraction** on clinical image data (800+ patients) to learn robust latent representations for downstream modeling.
- Built an **end-to-end ML pipeline** on multimodal healthcare data (image + audio) using a Random Forest + CNN ensemble, boosting multiclass classification accuracy from **55% → 75%** and enabling scalable predictive analytics.
- Engineered **data extraction and visualization pipelines** on a large-scale **US healthcare dataset (1.2B+ records)**, automating workflows and surfacing key clinical trends to improve reporting efficiency by 30%.
- Designed and validated **stroke-risk prediction models**, enabling scalable analytics and supporting early-intervention insights.

Projects

Operating System Development | C, Linux, x86 Assembly

- Implemented **core OS features** including process scheduling, memory management, and system calls; achieved **fault-tolerant performance** through low-level debugging in Linux.

AI-Based Image Generation | Stable Diffusion, CLIP

- Reproduced Stable Diffusion using **80K+ images**; optimized CLIP-guided text-to-image generation pipeline, improving coherence by 25% and achieving **81% artist imitation accuracy**.

Restaurant Reservation System | Django, PostgreSQL

- Designed and developed a **scalable full-stack web app** with **authentication, CRUD APIs, and real-time table availability**; engineered a **modular backend architecture** to optimize **data operations** and performance.

Achievements

- Placed **5th** in company-wide **AWS DeepRacer** competition, applying reinforcement learning for autonomous driving optimization.
- Developed an **LLM-based multimodal Streamlit chatbot** at Mercedes-Benz R&D to improve car manual accessibility using GPT-4o and Ada API (**text, audio, image prompts**); **secured 2nd place** in an internal hackathon.
- Recognized for **cross-functional collaboration and innovation**, consistently exceeding sprint goals and delivering high-quality releases ahead of schedule.