

AKSHAY VARMA PENMATSA

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Education

University of Texas at Dallas

December 2024

Master of Science, Information Technology and Management

GPA 3.9/4.0

Graduate Teaching Assistant – Advanced Algorithms Design and Analysis, 100+ students

Manipal Institute of Technology, Manipal, India

July 2020

Bachelor of Technology, Computers Science

Skills

Languages: Python, Go, Java, C, TypeScript, JavaScript, Bash, SQL

Tools: REST APIs, AWS, React.js, Node.js, MongoDB, Next.js, Spring, Git, Postman, Storybook, Docker, Kubernetes, Selenium, gRPC, Protocol Buffers, LangChain, Flask

Technologies: Object Oriented Programming, Full Stack Development, Cloud Computing, CI/CD

Professional Experience

FourKites

Chennai, India

Software Engineer

July 2022 – August 2023

Core Tracking Team

- Orchestrated migration to redux state management for the redesigned application using React and TypeScript.
- Enhanced the accuracy of ETA by 15% by optimizing routing algorithms and integrating real-time traffic data.
- Architected APIs with an optimized latency of ~5ms to render personalized banners in emails.
- Enhanced the CI/CD pipeline by integrating unit testing, which resulted in a 20% decrease in deployment errors.

Dynamic Yard Team

- Designed and implemented Vehicle Allocation Microservice using Java, increasing fault tolerance.
- Implemented a queue management algorithm to streamline vehicle flow, decreasing wait times by 20%.

Relative Finance

Hyderabad, India

Software Engineer, Founding Member

November 2021 – July 2022

- Improved application performance by 30% through optimization techniques like lazy loading, code splitting, and efficient state management, using Next.js and TypeScript.
- Designed and implemented a scalable database architecture, handling 3x more concurrent users.
- Enhanced the application's responsiveness and load handling by integrating Protocol Buffers.
- Deployed containerized applications using Docker and Kubernetes, reducing infrastructure costs by 20%.

iSpace

Hyderabad, India

Software Engineer

August 2020 – November 2021

- Collaborated with senior developers to build RESTful APIs using Node.js.
- Developed key features such as user authentication, profile management, and real-time data visualization.

Academic Projects

Multi – Agent LLM App ([GitHub](#)):

April 2024 – May 2024

- Engineered an app that finds YouTube interviews and blog posts for chosen technologies and business areas.

Deal Finder Chrome Extension ([GitHub](#)):

March 2024 – April 2024

- Developed a Chrome extension that automatically finds discount codes for products on various e-commerce sites, enhancing user savings and promoting sustainable shopping.

BFS DFS Visualizer ([GitHub](#)):

January 2024 – February 2024

- Developed an interactive visualizer for Breadth-First Search and Depth-First Search algorithms using Python.

Car Dealership RAG Chatbot (Full Stack) ([GitHub](#)):

August 2023 – November 2023

- Developed a chatbot RAG application providing users with insights from a MySQL database.

Awards and Achievements

- Orchestrated Core Fix Fest at FourKites, coordinating cross-functional teams to resolve critical issues.
- Won the FinTech Hackathon at UT Dallas by developing a financial management app featuring a chatbot.
- Rewarded FourKites Engineering Excellence Award for remarkable year-round agility.