AKSHAY VARMA PENMATSA

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Visa: F1 Student Visa

Education

University of Texas at Dallas   **May 2025**
Master of Science, Information Technology, **GPA 3.9/4.0**
Graduate Teaching Assistant – Algorithm Design, 100+ students

Manipal Institute of Technology, Manipal, India   **September 2020**
Bachelor of Technology, Computer Science

Skills

Languages: JavaScript, TypeScript, Python, HTML5, Bash, SQL**,** Go
Technologies: React.js, Node.js, Jest, Next.js, Express.js, FastAPI, LangChain, Scikit-learn, gRPC
Tools: Selenium, Webpack, Storybook, Jenkins, Docker, Kubernetes, MongoDB, MySQL, Git, AWS – S3, Lambda

Professional Experience

FourKites | Unicorn Startup - Supply Chain Visibility   Chennai, India
Software Engineer   June 2022 – August 2023
   Core Tracking Redesign Team
- **Achieved ~5kb reduction in bundle size** by orchestrating migration to Redux state management.
- **Improved render time by 33%** and **reduced memory usage by 17%** through optimization techniques.
- Enhanced design system architecture by structuring 30+ UI components into atoms, molecules, and organisms.
- Integrated unit testing, resulting in a **48% decrease in deployment errors**.

   Dynamic Yard Team
- **Reduced page load time of the mobile website by 51%** using optimizations along with caching by service workers and reverse proxies.
- Implemented Selenium WebDriver for 50+ automated test scripts validating critical functionalities.

Relative Finance | Early-Stage Startup   Hyderabad, India
Software Engineer, Founding Member   November 2021 – June 2022
- **Improved load time by 24%** through optimization techniques like lazy loading, code splitting, memoization, and image compression using React.js.
- Achieved **serialization speeds of ~2ms and 80% reduction in network usage** by integrating Protocol Buffers.
- Leveraged Docker and Kubernetes to deploy applications, achieving a **15% reduction in infrastructure costs**.

iSpace Inc | Global Tech Services Company   Hyderabad, India
Software Engineer   November 2020 – November 2021
- Implemented and maintained web pages and personalization widgets across modules on websites.
- Built REST APIs using Node.js with an **optimized latency of ~5ms** to render personalized banners in emails.

Academic Projects

AI-Powered Assistant for Special Education (SPED) Services: June 2024 – July 2024
- Developed an AI-powered assistant to centralize SPED resources and help parents interpret IEPs, enhancing access to special education services. Enabled secure login for parents to upload their child's private IEPs.

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.

BFS DFS Visualizer (GitHub):   January 2024 – February 2024
- Developed an interactive visualizer for Breadth-First Search and Depth-First Search algorithms using Python.

E-Commerce Website (GitHub):   September 2023 – November 2023
- Built end to end e-commerce website using React, JavaScript, Java and Spring Boot.

Awards and Achievements

- Rewarded FourKites Engineering Excellence Award for remarkable year-round agility.
- 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.