AKSHAY V

Charlotte, NC (Willing to Relocate) | ✉ Email | ☎ 704-400-5129 | 🌐 Portfolio | 💼 Linkedin | akshay242524

SUMMARY

Graduate Computer Science student with a strong foundation in Python, Java, and algorithmic problem-solving. Experienced in machine learning, data analysis, and software development through academic research and hands-on projects. Passionate about simplifying complex technical concepts and assisting students in understanding core principles of Artificial Intelligence and Data Structures. Eager to support faculty in lectures, grading, and lab instruction while fostering a collaborative learning environment.

SKILLS

Languages: JavaScript, TypeScript, Python, Java, C, C++, C#
Frameworks & Libraries: React.js, Angular, Node.js, NEXT.js, Express.js, TensorFlow, Keras
Databases & Data Management: MongoDB, Mongoose, Redis, MySQL, PostgreSQL, Prisma, Firebase, Supabase
Cloud Platforms & DevOps Tools: AWS, Azure, Google Cloud Platform, Docker, Kubernetes, Jenkins
Debugging Tools: Chrome DevTools, Visual Studio Debugger, Postman
Other: Distributed systems, Microservices architecture, REST APIs, GraphQL, UML

WORK EXPERIENCE

Data Analyst Intern | Schneider Electric   **Jan 2024 - Apr 2024**

- Collected, cleaned, and analyzed large datasets to identify performance trends and operational inefficiencies.
- Designed and developed interactive Power BI and Tableau dashboards to visualize key business metrics, improving data-driven decision-making.
- Automated data refresh processes and report generation using Power BI Service and scheduled pipelines.
- Collaborated with cross-functional teams to translate business requirements into actionable insights and visual reports.
- Optimized SQL queries and integrated multiple data sources (Excel, SQL Server, APIs) for unified dashboard reporting.

PROJECTS

E-Commerce Web Application

- Developed a scalable e-commerce platform with product catalog, cart, and order management features using Next.js and Express.js.
- Designed optimized RESTful APIs and implemented Redis caching, reducing product retrieval time by 30%.
- Integrated Stripe API for secure payments and automated order tracking across multiple user sessions.
- Deployed on AWS EC2 with Docker containers, ensuring 99% uptime and smooth CI/CD delivery.
- Enhanced UX with server-side rendering (SSR) and responsive design, improving page load speed and engagement metrics.

Travel Itinerary Planner – Multi-AI Agent System

- Developed an AI-powered travel itinerary planner using LangChain, LangGraph, and LLM integration to create customized trip plans based on user input.
- Implemented a StateGraph workflow to manage conversation flow and itinerary generation through modular node functions.
- Collected and processed user preferences (city, interests, trip duration) to dynamically generate detailed itineraries.
- Automated itinerary creation using LLM prompts and optimized for coherent multi-step planning.

Bluetooth-based Home Automation System using Arduino

- Designed and implemented a Bluetooth-enabled IoT system to remotely control home appliances using a mobile application.
- Integrated Arduino microcontroller with Bluetooth HC-05 module to enable wireless communication between devices.
- Developed a custom Android interface (via MIT App Inventor / Java) for real-time appliance control and system feedback.
- Programmed Arduino in C/C++ to handle signal processing, command execution, and relay operations efficiently.
- Enhanced system reliability with status indicators and fail-safe mechanisms for communication loss scenarios.
- Improved user convenience by automating lighting and device control, reducing manual operations by over 40%.

Real-Time Notes Application

- Developed a real-time collaborative note-taking web app using React.js and Firebase, enabling instant updates across multiple devices.
- Integrated WebSocket-based communication for live multi-user editing and synchronization.
- Implemented Google OAuth 2.0 authentication to ensure secure and seamless user login.
- Designed and deployed backend APIs with Node.js and Express.js, handling concurrent user sessions efficiently.
- Utilized Firebase Firestore for cloud-based storage and automatic data syncing across sessions.
- Deployed the application on Google Cloud Platform (GCP) with continuous deployment and monitoring for 99% uptime.

EDUCATION

Masters in Computer Science   **Aug 2024 - May 2026 (Expected)**
University of North Carolina, Charlotte | Concentration : Data Science   **GPA:** 4.0/4.0
Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Computer Comm & Networks, Database Systems

RESEARCH PAPER AND PATENT

- System and Method for Optimizing Range of an Electronic Article Surveillance System (Application Number:202311065375)
- General Deep Learning Model for Detecting Diabetic Retinopathy