SAHITHI NADIMPALLI

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PROFESSIONAL SUMMARY

- Senior Software Engineer with 5+ years of experience in full-stack development and enterprise applications.
- Expertise in Angular, .NET, C#, RESTful APIs, and database schema design.
- Experience in building scalable solutions and optimizing performance for business applications.
- Strong problem-solving skills with a focus on automation and software reliability.
- Adept at working in Agile environments, collaborating with cross-functional teams.
- Passionate about continuous learning and staying updated with the latest technologies.

EDUCATION

- Master's in Computer Sciences, Kent State University, Kent, OH.
- Bachelor of Technology in Information Technology, MGIT, India.
- **Relevant Course Work** Advanced Algorithms & Data Structures, Advanced Databases, Cloud Computing, Web Technologies and Application Development, Software Engineering, Information Security.

TECHNICAL SKILLS

- Languages: Java, Python, .NET Core, C#, C++, TypeScript, JavaScript (ES6)
- Frameworks & Technologies: Angular, React.js, Node.js, Spring Boot, REST APIs, SOA
- Databases: MySQL, PostgreSQL, MongoDB, PL/SQL, Oracle, Relational Database Schema Design
- Cloud & DevOps: AWS (EC2, S3, Lambda), CI/CD (Docker, Jenkins), Kubernetes
- Messaging Systems: Kafka, RabbitMQ
- Testing & Automation: Selenium, Cypress, Unit Testing, Windows App Driver
- Tools & Version Control: Git, GitHub, BitBucket, Postman, JIRA, Atlassian Suite

EXPERIENCE

• Development Engineering Intern

Legacy Agencies (January 2025 – present)

GPA: 4.0/4.0 (Expected May 2025)

GPA: 8.0/10 (May 2023)

- ➤ Leading the development of a cloud-based ERP solution for business aviation maintenance management, integrating real-time compliance tracking and analytics.
- > Designed and implemented microservices architecture using .NET Core, C#, and Kafka for high-performance data streaming.
- Developing Angular-based dashboards for real-time insights into aviation maintenance workflows, improving operational efficiency by 30%.
- Automated unit and integration testing using Cypress and Selenium, reducing software bugs by 40%.
- > Collaborated with cross-functional teams to enhance enterprise security and optimize cloud infrastructure.

• Full-Stack Developer Intern

Smart Cookie Rewards Pvt.Ltd (Feb 2024 – January2025)

- Designed and developed a customer rewards platform using React.js, Node.js, and MongoDB, serving 50,000+ users.
- ➤ Built a secure authentication and authorization system using OAuth 2.0 and JWT for role-based access.
- ➤ Integrated AWS services (EC2, Lambda, S3) to scale application performance and ensure data security.
- > Implemented real-time notifications using WebSockets and Kafka, enhancing user engagement.

• Software Engineer

Accenture (February 2023 – January 2024)

- Developed and deployed a core banking system module using Java, Spring Boot, .NET Core, and Hibernate, optimizing transaction speed and system stability.
- Designed a customer onboarding platform with a React.js front-end and a micro services-based backend using Node.js and Express.js, enhancing scalability and user experience.
- ▶ Built and secured RESTful APIs with OAuth 2.0 and JWT authentication, integrating banking services with third-party applications while ensuring data security.
- Optimized database operations using PostgreSQL, Oracle, and MongoDB, reducing query execution times and improving overall system efficiency.
- Automated CI/CD pipelines with Jenkins, Docker, and Terraform while implementing real-time monitoring with the ELK Stack and AWS Cloud Watch to enhance system reliability.

- ➤ Developed a full-stack employee management application using React.js, Node.js, and Express.js, featuring role-based access control and secure authentication.
- Designed a dynamic and responsive UI with React.js and Material UI, ensuring seamless user experience across multiple devices.
- > Built a robust backend with Node.js and Express.js, handling API requests, business logic, and secure data processing.
- Optimized data storage and retrieval in MongoDB with indexing and query optimizations, improving system performance.
- > Implemented real-time updates using Socket.IO for instant notifications and integrated APIs for email alerts and data visualization.

• Data Science Intern

Exposes Data Labs (August 2021 – April 2022)

- ➤ Developed predictive models using machine learning algorithms like Linear Regression, Random Forest, and Boost to generate actionable insights.
- > Cleaned and preprocessed data by handling missing values, outliers, and feature scaling, ensuring high-quality inputs for analysis.
- > Created interactive data visualizations with Matplotlib, Seaborn, and Tableau, helping stakeholders interpret key trends and insights.
- Applied feature engineering techniques such as correlation analysis and Recursive Feature Elimination (RFE) to enhance model accuracy.
- Automated data processing tasks using Python, improving efficiency and streamlining workflows.

PROJECTS

• Drone Detection and Classification using YOLOv5

This project leverages the YOLOv5 framework to perform real-time drone detection and classification. A custom dataset was created, with annotated images used to train the model for improved accuracy. The system is capable of identifying different drone types and provides a confidence score for each detection. By utilizing advanced object detection techniques, the model ensures reliable classification in varying environmental conditions.

• Startup Success Prediction Using Machine Learning

This project involves the development of an interactive web-based prediction system that evaluates startup success based on financial and managerial variables. Users can input key business metrics, and the system utilizes a machine learning model to analyze historical trends and generate real-time predictions. The platform provides valuable insights to entrepreneurs and investors, assisting in data-driven decision-making.

• Secure Password Manager with AES Encryption

Designed with a focus on security and user convenience, this password management system enables safe storage, retrieval, and administration of credentials. The system employs AES encryption to protect sensitive information and prevent unauthorized access. Additionally, it includes a password strength evaluation feature to encourage the use of secure passwords, enhancing overall cybersecurity.

• Real-Time Ray Tracing with Object Integration and Local Shading

This project integrates a Rubik's cube geometric object into a ray tracing system, enhancing the rendering capabilities with local shading and geometric transformations. The object is loaded from an OBJ file format, allowing for dynamic scene updates. The system processes transformations such as translation, scaling, and rotation, ensuring proper alignment and visualization in the 3D environment. Custom shaders were applied to maintain accurate color and light reflection, ensuring realistic rendering. The project demonstrates efficient handling of complex geometric objects and local lighting techniques in a ray tracing framework.

• Mentoroid: Personalized Mentorship and Learning Platform

Mentoroid is an intuitive one-on-one mentorship platform designed to foster personalized learning experiences. Users can log in with secure credentials to access a wide array of courses tailored to their learning needs. Mentors have the ability to upload course materials, assign lessons, and track student progress through performance analytics. The platform promotes a seamless connection between mentors and students, enabling real-time feedback and personalized guidance. By utilizing a user-friendly interface, Mentoroid helps enhance the learning journey, providing a structured environment for both students and mentors.

• COPD Patient Readmission Prediction and Management

This project focuses on predicting and managing readmissions for patients with Chronic Obstructive Pulmonary Disease (COPD). By analyzing patient data such as medical history, treatment adherence, and lifestyle factors, the system uses machine learning models to predict the likelihood of readmission. Healthcare providers can use this tool to identify high-risk patients and proactively intervene, optimizing care plans and reducing unnecessary hospital readmissions.