




SAINATH TALAKANTI

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PROFESSIONAL SUMMARY

Software Engineer and Full-Stack Developer with 3+ years of experience designing and deploying robust, scalable, and efficient web and mobile applications. Skilled in building enterprise-level applications with a strong foundation in Java, Python, JavaScript/TypeScript, React, Node.js, React Native, Spring Boot, and Django. Experienced in developing and integrating RESTful APIs, implementing microservices, and optimizing relational databases with PostgreSQL and MySQL. Proficient in containerization and deployment using Docker, Kubernetes, and cloud platforms (AWS, Azure, GCP). Committed to delivering high-quality solutions that drive business impact and improve user experiences.

EXPERIENCE

Abe Scott Enterprises, LLC

April 2025 – Present

Full Stack Developer Intern

Atlanta, Georgia

- Performed analysis and enhancement of application systems, recommending solutions for improved scalability and modernization.
- Developed and implemented full-stack applications using JavaScript (React Native, React.js), Node.js, and PostgreSQL, ensuring secure and efficient data flow.
- Architected backend services using Node.js and PostgreSQL, integrating RESTful APIs, optimizing relational schema design and ensuring secure data handling.
- Implemented authentication, authorization using Supabase Auth, ensuring robust security for enterprise-level applications.
- Coordinated within an Agile team to plan sprints, solving technical problems, conduct retrospectives, and maintain a clean, scalable codebase through GitHub workflows and peer reviews.
- Contributed to modernization efforts by planning deployments with Docker and Kubernetes on cloud environments.

University of Georgia

March 2024 – June 2025

Research Assistant - Java Developer

Athens, Georgia

- Developed a plugin for Neo4j graph database in Java using Maven, enabling advanced node embeddings for machine learning tasks.
- Conducted analysis of system requirements and translated them into technical solutions aligned with research goals.
- Implemented unit tests with JUnit and validated performance using logistic regression models.
- Experience working with Java, middleware (Neo4j APIs, Maven), and SQL-based environments.
- Evaluated link prediction models via logistic regression, achieving cross-validated AUC scores between 0.70–0.90 and F1 scores up to 0.90 on large-scale datasets.

Virtusa

January 2023 – April 2023

Software Engineer Intern

Hyderabad, India

- Crafted a responsive currency conversion web application using React (frontend) and Node.js (backend), following Agile methodologies and full SDLC practices.
- Connected third-party APIs to provide real-time currency exchange rates with precise conversions.
- Containerized the app using Docker and launched it for scalable and efficient hosting.
- Designed dynamic, user-friendly UI components to enhance usability and engagement.

RAM Innovative Infotech

June 2022 – July 2023

Java Full Stack Developer

Hyderabad, India

- Designed and implemented cloud-based service models with IntelliJ IDE, Java, J2EE, JSP, Servlets, Spring Boot, Hibernate, MySQL, JDBC, and REST APIs.
- Deployed and supported applications on Apache Tomcat.
- Enhanced security and reduced latency by implementing a certificate-less 0-RTT key agreement protocol, achieving a 60–90% cost reduction.
- Applied the Markov Chain Rule in the load balancer model, resulting in a 30% reduction in makespan and a 75% improvement in response time compared to previous approaches.
- Collaborated with multiple teams to deliver robust, scalable, enterprise-level web applications.

TECHNICAL SKILLS

Programming Languages: Java, C, Python, JavaScript, TypeScript, Kotlin, Rust, Scala, Swift
Web & Mobile Development: HTML5, CSS3, Bootstrap, ReactJS, Angular, Node.js, React Native, RESTful APIs, GraphQL, JSON
Databases: MySQL, PostgreSQL, Neo4j, MongoDB, Redis
Frameworks & Libraries: Spring, Spring Boot, Hibernate, JPA, Jira, Django, FastAPI, NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, OpenCV
AI: LLMs, Transformers, RAG, OpenAI, LangChain, Prompt Engineering, GenAI, AI agents, Copilot
Cloud & DevOps: AWS, Docker, Kubernetes, Terraform, Jenkins, CI/CD, Azure, GCP, GitHub Actions
Developer Tools & Methodologies: Ubuntu, Linux, Git, GitHub, GitLab, Apache Maven, Apache Tomcat, VS Code, IntelliJ, Android Studio, Xcode, Jupyter Notebook, Cargo, Agile, Scrum
Testing & Automation: Selenium, Postman, JUnit, Unit and Integration testing

PROJECTS

CloudMart - An E-Commerce Platform | AWS, Terraform, OpenAI API, Docker, Kubernetes

- Architected and deployed a scalable AI-powered e-commerce platform using AWS EC2, EKS, and containerized microservices.
- Automated infrastructure with Terraform and set up end-to-end CI/CD using AWS CodePipeline, CodeBuild, and CodeDeploy.
- Integrated OpenAI API to deliver real-time, intelligent customer support through a conversational chat interface.

Prediction of Impacts of Climate Changes on Crops | NumPy, Jupyter, Scikit-learn, Tensorflow, Pandas, OpenCV

- Constructed a data science pipeline to forecast environmental impacts on crop yields using large-scale datasets.
- Processed and refined raw data through cleaning and preprocessing to ensure robust model training.
- Trained and validated regression and neural network models, achieving up to 80% prediction accuracy.

RustFL: A Federated learning Model using Rust | Rust, Pytorch, Docker

- Devised a federated learning framework using PyTorch for secure & asynchronous ML model training with privacy preservation.
- Incorporated Differential Privacy, Secure Multiparty Computation (SMPC), and asynchronous communication.
- Containerized and launched the solution with Docker for continued deployment across varied environments.

Comparative Analysis of Algorithms for Image Classification | OpenCV, Jupyter, Tensorflow, NumPy

- Evaluated CNN architectures (AlexNet, VGGNet-19, ResNet) on CIFAR-10, CIFAR-100, and ImageNet datasets.
- Performed training, testing, and benchmarking to compare model accuracy, achieving up to 90% accuracy.
- Optimized training using data augmentation and hyperparameter tuning, improving generalization and reducing overfitting across datasets.

SilverScreener: A Movie Ticket Reservation System | Java, Maven, Spring Boot, MySQL, JSP, JavaScript

- Built a full-stack web application for booking movie tickets with secure authentication, encrypted passwords & responsive UI.
- Designed and optimized a normalized MySQL database schema to eliminate redundancies and ensure efficient data retrieval.
- Developed and integrated Spring Boot backend services with JSP/JDBC frontend for seamless interaction between users and database.

EDUCATION

University of Georgia	2023 – 2025
Master of Science, Computer Science	Athens, Georgia
Guru Nanak Institutions Technical Campus	2019 – 2023
Bachelor of Technology in Computer Science	Hyderabad, India