

SAI KIRAN SANGAM

Full Stack Developer | Machine Learning

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Summary:

Versatile Software Engineer and Full Stack Developer with a Master’s in Computer Science from Old Dominion University. Experienced in front-end and back-end development, with a strong foundation in Machine Learning. At AutoZone, I have built scalable software solutions, optimized system performance, and contributed to financial applications that enhanced operational efficiency. My experience as a Graduate Research Assistant deepened my ability to blend theoretical insights with practical applications. Passionate about AI-driven development, I thrive in collaborative environments where technology meets real-world impact.

Experience:

Full Stack Software Engineer, AutoZone

Feb 2023 - Present

- Engineered scalable applications using **C++, Java, Python, JavaScript**, and **ReactJS**, improving system performance, enhancing API development, and optimizing customer experiences.
- Led the backend development of AutoZone’s **Cash Bank** application, implementing robust **RESTful APIs** to support efficient financial transactions across 7,000+ stores.
- Optimized **cloud deployment** processes by integrating **AWS services** (Lambda, S3, EC2) to improve application scalability and maintainability.
- Designed and deployed the **remote order notes feature**, facilitating seamless communication between hub and sister stores, utilizing **serverless architecture** for scalable data management.
- Developed and deployed a **stocking and consignment application** that increased sales by 37%, improving inventory management and commercial sales processes.
- Implemented a **tax return system** that integrated a tax aggregator upgrade to prevent overpayments, leveraging **AWS Lambda** and **DynamoDB** for efficient data handling, resulting in millions in savings.
- Optimized system architecture by adopting **microservices** and **event-driven architecture**, enhancing scalability, reliability, and overall performance.

Software Engineer | Graduate Research Assistant, OLD DOMINION UNIVERSITY

Jan 2021 - Jan 2023

- Developed software solutions that **reduced processing time by 20%** for data-intensive tasks.
- Built and maintained **web-based applications**, ensuring high availability for users and administrators.
- Optimized software performance, reducing **application response times by 25%**.
- Conducted **literature reviews and research** on machine learning, contributing to three research projects in AI and computer science.

Research Intern, Old Dominion University

Aug 2020 - Dec 2020

- Developed a **wearable-based monitoring application** for Alzheimer’s and Dementia patients, reducing **patient-on-patient violence** through real-time alerts.
- Recognized as ‘**Most Outstanding Research Intern**’ for impactful contributions in patient care technology.

Education:

Masters in Computer Science, OLD DOMINION UNIVERSITY,

CGPA: 3.88/4.00

Jan 2021 - Aug 2022

Emphasis on Web Programming | Intro to Data Science | Data Mining and Security | Computer Architecture | Machine Learning | Data Structures and Algorithms | Cyber Security.

Technical Skills

- Front-end:** ReactJS, Next.js, Redux, Vue.js, Angular, Tailwind CSS, Bootstrap, Material-UI, Webpack.
- Backend:** Spring Boot, Spring, Express.js, NestJS, FastAPI, Django, Flask, GraphQL, gRPC.
- Databases:** PostgreSQL, MySQL, MongoDB, Redis, Cassandra, DynamoDB, Firebase, Elasticsearch.
- Programming languages:** Python, Javascript, PHP, Java, C, C++, C#.
- Microservices & System Architecture:** Event-Driven Architecture, Serverless, Message Queues (RabbitMQ, Kafka, NATS), API Gateway, Load Balancing, Caching Strategies
- Machine Learning & AI:** TensorFlow, PyTorch, Scikit-learn, OpenCV, Hugging Face, LangChain, LLM APIs
- Cloud:** AWS (Lambda, S3, EC2, RDS, DynamoDB, ECS), Azure, Google Cloud, Kubernetes, Docker, Terraform, Jenkins, GitHub Actions, CI/CD Pipelines.

Projects:

- Transfer Equivalency Portal:** Thrived the Transfer Equivalency Portal for Old Dominion University, automating course-by-course equivalency credit assessments by 90% and expediting the onboarding process for incoming students. [GitHub](#).
- Self-training with noisy students improves ImageNet classification:** [GitHub](#) Developed an advanced semi-supervised learning framework significantly improving imageNet classification, this involves innovatively training a student model using a mix of labeled data, leading to breakthroughs in Image classification accuracy and model robustness.
- Aggression Detection in Alzheimer’s and Dementia patients:** Developed an Android application using Java in Android Studio, integrating Firebase for real-time data management, to monitor gyroscopic values from wearable devices on Alzheimer's and dementia patients. Implemented anomaly detection algorithms that trigger alerts to nearby nursing staff when thresholds are breached, achieving approximately 90% accuracy in aggressive behavior detection.

Academic Projects:

- DevMeet:** Developed DevMeet, a MERN stack social networking application for developers, showcasing strong full-stack development skills and the ability to create user-centric web applications. [GitHub](#)
- New York Airbnb Analysis:** Performed data analysis and predictive modeling on New York Airbnb data, achieving a Mean Absolute Error (MAE) of 29.97, a Mean Squared Error (MSE) of 14.41, and an R2 score of 0.37, demonstrating strong analytical and machine learning skills for data-driven decision-making. [GitHub](#)

Leadership/Volunteer Activities

- IEEE | ACM student- Engaged in research, networking, and technical discussions