

# Avinash Saxena

## Software Engineer

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**Github** - [github.com/AvinashSaxena777](https://github.com/AvinashSaxena777)

Software Engineer with 3+ years of experience building scalable backend systems and first-party tools using Java, Spring Boot, and microservices. Proven track record in integrating complex CRM/Salesforce workflows and cloud-native architectures to accelerate business productivity. M.S. in Artificial Intelligence with hands-on experience applying GenAI and LLM-driven automation to transform data into real-time actionable insights.

### Education

<b>San Jose State University</b> MS. - Artificial Intelligence	Dec 2025 GPA: 3.8
<b>SGSITS - Shri G.S. Institute of Technology &amp; Science</b> BE. (Honors) - Information Technology	May 2019 GPA: 3.8

### Work Experience

<b>San Jose State University   Research Assistant</b>   San Jose, CA	July 2024 - Dec 2024
<ul style="list-style-type: none"><li>Developed Agentic AI application using LLMs and GraphQL to automate student resource retrieval, improving accessibility by 30%.</li><li>Engineered a full-stack solution with Node.js, React, and Kafka for real-time data streaming, reducing deployment errors by 40% via CI/CD.</li><li>Optimized LLM accuracy by 25% through meta-prompting and chain-of-thought reasoning with iterative feedback loops.</li><li>Applied curriculum learning by training models on datasets of increasing complexity, boosting query generalization by 18%.</li></ul>	
<b>Deloitte   Software Engineer</b>   Hyderabad, Telangana, India	Jan 2020 - Sep 2021
<ul style="list-style-type: none"><li>Enhanced Spring Microservice API performance by implementing caching and asynchronous processing, reducing response times by 66% (from 30s to 10s).</li><li>Scaled ELK Stack from a single-server setup to a distributed architecture across 4 Google Cloud Platform (GCP) servers, significantly improving system reliability and data processing scale.</li><li>Optimized SQL query performance via targeted tuning, resulting in a 35% improvement in database response times for business critical applications.</li><li>Resolved 80+ backend issues and implemented 40+ feature enhancements, increasing customer satisfaction by 20% through rigorous root cause analysis.</li><li>Engineered an asynchronous web crawler using Scrapy and multi-threading to identify broken links across 4 million pages with 95% accuracy</li></ul>	
<b>NTT Data   Software Engineer - Salesforce</b>   Hyderabad, Telangana, India	Sep 2021 - Jan 2024
<ul style="list-style-type: none"><li>Managed a three-member team to integrate web applications with Salesforce (Sales Cloud/CPQ) using Mulesoft, increasing data synchronization speed by 30%.</li><li>Engineered custom LWC-based interfaces to streamline sales workflows, reducing development cycles by 25% and enhancing cross-functional collaboration.</li><li>Led change management and impact assessment for critical system updates, ensuring stakeholder buy-in and 99.9% service uptime.</li></ul>	

- Automated production rollouts using Dockerized microservices and CI/CD pipeline, reducing errors by 40% through robust monitoring.
- Developed custom applications on Sales Cloud and Service Cloud using Apex, Visualforce, and Lightning Web Components

Projects

**Retrieval-Augmented Framework for Deepfake Audio Detection (Master's Thesis)** | RAG, Audio Feature Engineering, LLMs, Model Training & Optimization | <https://github.com/AvinashSaxena777/RADAD-RetrievalAugmentedDeepfakeAudioDetection>

Jan 2025 - Dec 2025

- Designed a GenAI detection framework using retrieval-augmented generation (RAG) to identify AI-generated audio by comparing samples against authentic and spoofed datasets.
- Built a machine learning pipeline that achieved high accuracy in open-set testing, ensuring robustness against unseen synthesis techniques and speakers.
- Documented results through committee review, delivering a deployment-ready solution optimized for real-world forensics and security use cases.

**Intelligent Autonomous Robot Patrolling** | Computer Vision, Multi-Threat Evaluation | <https://github.com/AvinashSaxena777/SSRCP-CMPE281>

Jan 2025 - Apr 2025

- Developed a multi-threat detection system using YOLOv8 and Transformers, achieving 95% accuracy through synthetic data augmentation and real-world validation.
- Architected AWS cloud infrastructure using SageMaker endpoints and auto-scaling groups to support 50+ concurrent sessions with 99.9% uptime.
- Integrated gRPC and automated quality control pipelines to reduce false positives by 40% through iterative feedback loops.

Skills

Software Engineering:	Java, Python, Node.js, Spring Boot/Microservices, GraphQL, React, Kafka, Hibernate, Django, Agile
AI & Machine Learning:	GenAI, LLMs (LangChain), PyTorch, Scikit-learn, NLP, Recommender Systems, AWS SageMaker
Cloud & DevOps:	AWS, GCP, Docker, Kubernetes, CI/CD (Jenkins), Git, ELK Stack, Shell Scripting, SQL Tuning
Salesforce Certifications:	Sales Cloud Consultant, CPQ Specialist, Platform Developer II, Revenue Cloud Consultant, Platform Developer I, Salesforce Administrator