

RAKESH SURAMPALLI

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PROFESSIONAL SUMMARY

Highly accomplished Data-driven Software Engineer and Product Developer with 6+ years of experience building intelligent, full-stack solutions across healthcare, finance, and IoT. Experienced in developing LLM-powered applications using OpenAI models, LangChain, vector search, and retrieval-augmented pipelines to automate analysis and deliver smarter user experiences. Proficient in Python, Django, React, and expert in cloud-native ML deployment on Azure and GCP. Adept at translating business goals into scalable data systems, predictive models, AI features, and user-centric applications that enhance decision-making and accelerate product value.

TECHNICAL SKILLS

- **Languages:** Python, R, SQL, Bash, Hadoop, PySpark, Java, TypeScript.
- **Frameworks & Libraries:** Django, FastAPI, React, Node.js, React Native
- **AI & LLMs:** OpenAI API, LangChain, vector embeddings, RAG pipelines, prompt engineering, LLM-based automation
- **Machine Learning:** TensorFlow, PyTorch, Scikit-learn, LSTM models, anomaly detection, predictive modeling
- **Databases:** MySQL, PostgreSQL, MongoDB, S3, Aurora, DynamoDB, Azure SQL Database.
- **Cloud & DevOps:** AWS, Azure, GCP, Docker, Git, REST APIs, GitHub Actions CI/CD.
- **Visualization:** Power BI, Tableau, Splunk, Adobe Analytics.
- **Monitoring & Security:** Splunk, Azure Monitor, Log Analytics, IAM, HIPAA/SOC2 compliance
- **Tools:** Jupyter, Google Colab, GitHub, Postman, Microsoft Excel, OpenCV, Jira

PROFESSIONAL EXPERIENCE

Senior AI & Full-Stack Engineer - CVS Health | Jun 2023 – Present

- Integrated LLM-powered intelligence using LangChain and OpenAI models to automate threat summarization, generate actionable risk insights, and enhance incident investigation workflows across the security platform.
- Designed and implemented an AI-powered security analytics and dashboard platform for the CVS Security Team, improving risk visibility, incident tracking, and automation within the RSA Archer ecosystem.
- Architected high-availability microservices in Django, deployed on Azure App Service with Docker and GitHub Actions CI/CD, ensuring tier-one reliability for security operations.
- Engineered data pipelines with Azure SQL, Cosmos DB, and Blob Storage, integrating

encryption, IAM-based access controls, and compliance with HIPAA/SOC2 standards.

- Designed scalable system architecture supporting distributed data processing and real-time risk visualization dashboards using React, Node.js services, and Power BI.
- Developed internal tools and companion mobile components using React Native to support on-the-go security alerts and workflow approvals.
- Automated incident workflows and reporting using Azure Functions, Logic Apps, and Infrastructure as Code practices, leveraging Terraform for environment configuration.
- Collaborated with cloud security engineers on Kubernetes container orchestration, network segmentation, and policy enforcement for sensitive data services.
- Conducted root-cause analysis using Splunk, Azure Monitor, and Log Analytics, driving continuous reliability improvements.
- Mentored junior developers on secure coding, cloud best practices, and full-stack delivery across distributed systems.

Data Analytics Engineer - Copart | Jun 2022 – May 2023

- Analyzed auction and vehicle performance metrics using Python and SQL to optimize pricing and listing strategies.
- Built interactive Tableau dashboards for operations, finance, and yard teams.
- Designed ETL pipelines to support inventory and customer trend analysis.
- Led data migration from on-prem MariaDB to GCP, enhancing scalability and performance.
- Collaborated with cross-functional teams to streamline analytics and reporting workflows.

Backend Developer Intern - Toyama Home Automation | May 2019 – Jan 2021

- Built Django-based backend for smart home automation integrated with AWS and IoT sensors.
- Enabled control of appliances via React frontend, mobile app, and Alexa voice commands.
- Designed time-based automation logic and centralized sensor data pipelines.
- Deployed secure Dockerized microservices using CI/CD, reducing API latency by 40%.
- Followed test-driven development, implementing unit tests and RESTful microservices.

Sensing and Automation Lead - Project Manas | Oct 2016 – May 2019

- Integrated LiDAR, radar, and camera sensors for autonomous vehicle perception.
- Designed custom PCBs and connected embedded systems to NVIDIA GPU platforms using Embedded C.
- Built sensor fusion and real-time object detection pipelines with OpenCV and deep learning.
- Collaborated with control teams to deploy and validate navigation algorithms.

EDUCATION

Master's in Business Analytics, University of Texas at Dallas, USA

Bachelor's in Mechatronics Engineering, Manipal Institute of Technology, India

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate
- Microsoft Certified: Azure Solutions Architect Expert
- Google Data Analytics Certificate - Coursera
- Deep Learning Specialization - Coursera (Andrew Ng)
- Machine Learning Engineer for Production (MLOps) - Coursera