Sirichandana Bomma
Machine Learning Engineer

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LinkedIn | GitHub | Portfolio

Medium | Academia

PROFESSIONAL SUMMARY

- Machine Learning Engineer with **3 years of experience** in designing, developing, and deploying AI/ML models at scale.
- Expertise in **deep learning, NLP, MLOps, and cloud-based AI solutions** across Azure, AWS, and GCP.
- Proven ability to build and optimize **end-to-end ML pipelines**, fine-tune LLMs, and deploy real-time and batch inference models.
- Strong background in **retrieval-augmented generation (RAG), fraud detection, and GenAI solutions**.
- Passionate about applying AI to solve real-world business challenges with a focus on **scalability, efficiency, and model interpretability**.

SKILLS

- **Programming Languages:** Python (NumPy, Pandas, scikit-learn, TensorFlow, PyTorch, JAX, Keras), SQL, Scala, C++, PySpark
- **Machine Learning & AI:** Supervised Learning, Unsupervised Learning, Deep Learning, CNNs, RNNs, Transformers, LSTMs, BERT, GPT, T5, LLaMA, GANs, Reinforcement Learning, Transfer Learning
- **Natural Language Processing (NLP) & LLMs:** Tokenization, Named Entity Recognition (NER), Sentiment Analysis, Text Summarization, Prompt Engineering, Retrieval-Augmented Generation (RAG), OpenAI GPT Models, Fine-tuning LLMs
- **Data Engineering & Big Data:** Apache Spark, Hadoop, Kafka, Databricks, Snowflake, PostgreSQL, MongoDB, Pinecone, FAISS
- **Cloud & Deployment:** AWS (S3, Lambda, SageMaker, ECS, EKS), Azure (Copilot Studio, Azure ML, Blob Storage, Functions), Google Cloud (Vertex AI, BigQuery, Cloud Run), Docker, Kubernetes, CI/CD, Airflow
- **MLOps & Model Deployment:** MLflow, Model Monitoring, Drift Detection, Online & Offline Model Inference, AutoML, FastAPI, Flask, RESTful APIs
- **AI & Data Science Applications:** Fraud Detection, Anomaly Detection, Recommendation Systems, Predictive Analytics, Computer Vision, AI Agents, Generative AI, Time Series Analysis
- **Data Visualization & Analytics:** Power BI, Tableau, Matplotlib, Seaborn, Excel, A/B Testing
- **Soft Skills:** Problem-Solving, Critical thinking, Agile Project Management, Attention to Detail, Communication, Teamwork, Leadership.

EMPLOYMENT HISTORY

Machine Learning Engineer | 7Stones Tech LLC   **July 2024 – Present**
- Designed and deployed **LLM-powered AI solutions**, optimizing **retrieval-augmented generation (RAG)** for knowledge retrieval applications.
- Developed and fine-tuned **GPT-based chatbots**, improving customer support automation by **30%**, reducing response time by **40%**.
- Built and deployed **real-time fraud detection models** using Spark and Kafka, reducing false positives by **20%**.

- Implemented **MLOps pipelines** for model monitoring, versioning, and automated retraining, improving model accuracy and reducing drift.
- Developed and optimized **Azure Copilot AI models** to enhance enterprise AI automation solutions.
- Designed **NLP models** for sentiment analysis, spam detection, and document classification, improving accuracy by **15%**.
- Integrated AI models into **cloud-based production environments** (AWS, Azure, GCP) using **CI/CD pipelines**.

Software Engineer | Zensar Technologies Limited, Hyderabad, India   **Aug 2021 - July 2022**
- Developed **real-time ML-based ad targeting models**, improving conversion rates by **18%** using Spark and Hadoop.
- Built **predictive analytics models** to forecast customer behavior, increasing user engagement by **25%**.
- Designed and optimized **ETL pipelines** for large-scale data processing, reducing latency by **30%**.
- Automated data ingestion and feature engineering workflows using **AWS Glue and Apache Airflow**.

Machine Learning Intern, COIGN Technologies, Warangal, India   **Dec 2020 - June 2021**
- Developed **fraud detection models** using Spark MLlib, improving accuracy by **22%**.
- Implemented **Bi-LSTMs for document classification**, enhancing efficiency in insurance claim processing.

Android Developer Intern, COIGN, Hyderabad, India   **June 2020 - Nov 2020**
- **Developed Android applications** using Java, XML, and Firebase, ensuring smooth UI/UX performance.
- **Implemented RESTful APIs** for data retrieval, improving app response time by **30%**.
- **Developed reusable code libraries**, streamlining future development tasks while maintaining consistency across projects.

EDUCATION

LLM-Powered GenAI Chatbot for Enterprise Automation
- Developed and fine-tuned **GPT-based chatbot** using OpenAI APIs and **retrieval-augmented generation (RAG)**.
- Optimized **prompt engineering strategies**, reducing AI hallucinations by **35%**.
- Integrated with **Microsoft 365 and ServiceNow**, automating IT Help Desk workflows.

Real-time Anomaly Detection in Financial Transactions
- Built a **fraud detection system** using **XGBoost and deep learning models**.
- Implemented **Kafka streaming pipelines** to analyze transactions in real time.

EDUCATION

University of North Texas   Denton, TX, USA

Master's in Information Science; GPA: 3.7   **August 2022 – May 2024**

Jawaharlal Nehru Technological University   Hyderabad, Telangana, India

Bachelor of Technology in Computer Science & Engineering; GPA: 3.4   **July 2017 – August 2021**

CERTIFICATION LINKS

Salesforce Certified AI Associate

IBM Certified Machine Learning Developer

LearnKartS Certified Kubernetes Application Developer (CKAD)

IBM Certified Enterprise Design thinking Practitioner

IBM certified Enterprise Design Thinking – Team essentials for AI

AI in Healthcare by Stanford University

Data Science with python by SimpliLearn

Large Language Models by SimpliLearn

Generative AI by SimpliLearn

Vanderbilt University Certified Prompt Engineering