**Sirichandana Bomma**

**Machine Learning Engineer**

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[LinkedIn](https://www.linkedin.com/in/sirichandanabomma/) | [GitHub](https://github.com/Sirichandana-bomma-ai) | [Portfolio](https://sirichandana-bomma-ai.github.io/sirichandana.github.io/)

[Medium](https://medium.com/@sc.bomma) | [Academia](https://independent.academia.edu/bommasirichandana)

# 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](https://thc-public-files-nonproduction.s3.amazonaws.com/th-profile/credentials/sf-certs/sf-cert-AI-Associate.zip)

# [IBM Certified Machine Learning Developer](https://www.coursera.org/account/accomplishments/professional-cert/certificate/151Z8K8N9BL6)

# [LearnKartS Certified Kubernetes Application Developer (CKAD)](https://www.coursera.org/account/accomplishments/specialization/certificate/AUZPLN8R86TJ)

# [IBM Certified Enterprise Design thinking Practitioner](https://www.credly.com/badges/d64ae444-07bf-402e-9601-0629eaf48182/linked_in_profile)

# [IBM certified Enterprise Design Thinking – Team essentials for AI](https://www.credly.com/badges/3fd632e9-7ea1-43d9-b1b0-0f730461212f/linked_in_profile)

# [AI in Healthcare by Stanford University](https://www.coursera.org/account/accomplishments/specialization/certificate/Z1IU4R4OQ6XU)

# [Data Science with python by SimpliLearn](https://certificates.simplicdn.net/share/3447654_1652387795.pdf)

# [Large Language Models by SimpliLearn](https://www.simplilearn.com/skillup-certificate-landing?token=eyJjb3Vyc2VfaWQiOiIzODA4IiwiY2VydGlmaWNhdGVfdXJsIjoiaHR0cHM6XC9cL2NlcnRpZmljYXRlcy5zaW1wbGljZG4ubmV0XC9zaGFyZVwvNzU2MTMzN18yMTU3ODk4MTczMTYxMDc1MDQxOC5wbmciLCJ1c2VybmFtZSI6IlNpcmljaGFuZGFuYSBCb21tYSJ9&utm_source=shared-certificate&utm_medium=lms&utm_campaign=shared-certificate-promotion&referrer=https%3A%2F%2Flms.simplilearn.com%2Fcourses%2F6751%2FIntroduction-to-Large-Language-Models%2Fcertificate%2Fdownload-skillup&%24web_only=true&_branch_match_id=1357726406963667776&_branch_referrer=H4sIAAAAAAAAA8soKSkottLXL87MLcjJ1EssKNDLyczL1k%2FVN6sIDk2xrMx3D0iyrytKTUstKsrMS49PKsovL04tsvUBqkpN8cwDAG06HRRBAAAA)

# [Generative AI by SimpliLearn](https://www.simplilearn.com/skillup-certificate-landing?token=eyJjb3Vyc2VfaWQiOiIzODA3IiwiY2VydGlmaWNhdGVfdXJsIjoiaHR0cHM6XC9cL2NlcnRpZmljYXRlcy5zaW1wbGljZG4ubmV0XC9zaGFyZVwvNzcxNjM0MV8yMTU3ODk4MTczNTM0ODM1ODAzNi5wbmciLCJ1c2VybmFtZSI6IlNpcmljaGFuZGFuYSBCb21tYSJ9&utm_source=shared-certificate&utm_medium=lms&utm_campaign=shared-certificate-promotion&referrer=https%3A%2F%2Flms.simplilearn.com%2Fcourses%2F6750%2FIntroduction-to-Generative-AI%2Fcertificate%2Fdownload-skillup&%24web_only=true&_branch_match_id=1357726406963667776&_branch_referrer=H4sIAAAAAAAAA8soKSkottLXL87MLcjJ1EssKNDLyczL1k%2FVrwwzz%2FF2Ms93D0iyrytKTUstKsrMS49PKsovL04tsvUBqkpN8cwDAF40pb5BAAAA)

# [Vanderbilt University Certified Prompt Engineering](https://www.coursera.org/account/accomplishments/specialization/certificate/2G59JDQSAG1S)