Gopi Maguluri

+1-9255998761 | [Email](#) | [LinkedIn](#) | [Github](#) | San Francisco (open to relocate)

Data Scientist with **3+ years of experience** developing and deploying end-to-end Machine Learning solutions for businesses.

EDUCATION

University of San Francisco   San Francisco, California
Master of Science in Data Science   July 2024 - June 2025

BML Munjal University   New Delhi, India
Bachelor of Technology in Electronics and Communication Engineering   August 2017 - June 2021

SKILLS, ACTIVITIES & INTERESTS

Technical Skills: Machine Learning, Deep Learning, Natural Language Processing, Reinforcement Learning, Large Language Models, Prompt Engineering, Generative AI, Statistical Modeling, TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, SciPy, Python, Shell, Linux, SQL, AQL, PySpark, API development, FastAPI, Docker, Git

Certifications & Training: [Deep Generative models](#), Indian Institute of Science, Jan 2023 to May 2023

Activities: President of Performing Arts Club, Data Science Mentor at Sabudh Foundation

EXPERIENCE

ArangoDB   San Francisco, California
Machine Learning Engineer, Intern (LLMs, Fine-tuning, Reinforcement Learning, Shell) October 2024 – Present
- Developed a **Natural Language to ArangoDB Query Language (AQL) system** by **fine-tuning LLMs** using **PEFT** enabling seamless interaction with graph databases, **improving query efficiency by 78%** for customers.
- Engineered LLM fine-tuning pipelines with **custom reward functions for reinforcement learning**, optimizing GPU utilization and training efficiency, **resulting in a 25% improvement** in AQL generation accuracy.
- Developed an **automated data generation pipeline** for graph databases to fine-tune LLMs, built an **LLM-as-a-Judge based validation system reducing manual effort by 85%**.

Tatras Data   New Delhi, India
Data Scientist (NLP, TensorFlow, PyTorch, Transformers, prompt engineering, FastAPI)   July 2021 – June 2024
- Developed an NLP solution to automate matching job categories based on job titles and industries by **training Bi-Encoders, Cross-Encoders and fine-tuning Gemma-2B**, achieving a **75% reduction in matching time**.
- Developed a **production-ready, dockerized API** to interact with the databases in natural language by **automating SQL query generation using LLMs and prompt engineering**, delivering **80% accuracy**.
- Developed and deployed a dockerized end-to-end solution for a text ranking use case using **Word2Vec**, FastText, **GRUs, BERT,** and **Sentence Transformers**, **reducing** customer's **manual effort** in ranking **by 90%**.
- Implemented and deployed an **Intelligent Document Processing solution** with document clustering and token classification pipeline by **training LayoutLMv3**, improving customer's document processing **efficiency** by **5x**.

Smart Energy Water   Noida, India
Data Scientist, Intern (Random Forest, XGBoost, Convolutional Neural Networks)   January 2021 – June 2021
- Developed a text **classification** solution for customer complaints using **custom-trained FastText embeddings** and an **ensemble of Decision Trees, Random Forest and XGBoost** algorithms, **resulting in 92% accuracy**.
- Accomplished a **research** based **project** that aimed at **disaggregating household electricity consumption** to the appliance level, involving data analysis, **feature engineering and model training using CNNs**.

PROJECTS

Deep Learning based Chess Bot | [Github](#)   San Francisco, California
Tech stack: PyTorch, Self-Attention, Squeeze-and-Excitation Networks, Transformers, GPU Cluster
- Secured **1st place** and a **$10,000 credit** in the *Chess GPU Hackathon* by designing and **training** a high-performance **deep learning based chess model** from scratch **on a 48-GPU cluster**.

Fine Tuning Gemma for Law Stack Exchange | [Github](#)   San Francisco, California
Tech stack: PyTorch, NeMo Curator & Microservices, Data Preprocessing, Large Language Models, Fine-tuning
- Preprocessed 20,000+ legal forum records with **Nvidia NeMo Curator**, and **fine-tuned Gemma 2B model** using NeMo microservices, improving tagging accuracy by 15% during the **ODSC Nvidia Hackathon**.

Raga Identification in Indian Classical Music | [Github](#)   New Delhi, India
Tech stack: Python, TensorFlow, Data Analysis, Feature Engineering, Convolutional Neural Networks, Flask
- Developed and deployed a **web application** to **predict Ragas from audios** by extracting Mel spectrograms and pitch contours, and **training CNNs**, achieving **82% accuracy** as **Data Science Intern at Sabudh Foundation**.