

# Srinath Tummala

AI Engineer | Data Scientist

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## Professional Summary

Highly accomplished **AI Engineer and Data Scientist** with **4 years of experience** specialising in production-ready **GenAI, LLMs, and RAG pipelines**. Proven expertise in performance engineering, achieving an **80% reduction in training time** and a **60% reduction in response latency**. Strong background in deploying scalable AI microservices within enterprise infrastructures.

## Technical Skills

**Generative AI:** GPT-4, Llama, RAG Pipelines, Prompt Engineering, LangChain, Vector Databases (FAISS), LoRA/PEFT

**Machine Learning:** NLP, Multilingual AI, Computer Vision, PyTorch, TensorFlow, Scikit-learn, MLOps

**Architecture:** Python, SQL, NoSQL (MongoDB), FastAPI, PostgreSQL, EDA, Data Wrangling, ETL Pipelines

**Cloud & DevOps:** AWS (S3, SageMaker), Docker, Kubernetes, CI/CD (Jenkins), Grafana, Git

## Experience

### Data Scientist

*Apporchid*

December 2023 – Present

*Hyderabad, India*

- Reduced model training time by **80%** and response latency by **60%** by implementing **Stochastic Variational Inference (SVI)** for high-dimensional models.
- Developed enterprise-grade **RAG pipelines** using FAISS and LangChain; optimised retrieval via **semantic chunking** and hybrid search.
- Architected and containerised **FastAPI microservices** deployed via Jenkins CI/CD on **AWS infrastructure**.

### Junior Data Scientist

*Onpassive*

July 2022 – December 2023

*Hyderabad, India*

- Engineered multilingual NLP systems using **Transformer-based architectures** to support global product scaling.
- Developed deep learning **eKYC modules** using CNNs for face detection and identity verification.
- Collaborated with technical leadership to integrate modular AI microservices into production ecosystems.

### Data Science Intern

*Onpassive*

January 2022 – April 2022

*Hyderabad, India*

- Developed an NLP-based email classification system categorising communications with high precision.

## Key AI Projects

### RAG-Powered Document Search Assistant

*GPT-4, LangChain, FAISS, FastAPI*

- Built a personal RAG QA assistant using **GPT-4** and **text-embedding-ada-002** for high-precision semantic search.
- Optimised retrieval relevance by fine-tuning chunking granularity and prompt heuristics for enterprise performance.

### Master's Thesis: Malicious URL Detection

*Python, AdaBoost, Random Forest*

- Engineered a Voting Ensemble classifier using 17 lexical features achieving **99.8% accuracy** on 450K+ entries.
- Optimised model performance by architecting a hybrid system combining **AdaBoost** and **Random Forest** architectures.

### Official College Communication App

*Java, Android Studio, XML*

- Engineered and deployed an official Android application for BVC to streamline academic updates and communications.
- Maintained production impact with **1,000+ active downloads** and a 4.4/5 rating on the Play Store.

## **Education**

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### **Master of Science in Data Science**

*GITAM University*

October 2020 – June 2022

*Hyderabad, India*

- **CGPA: 8.89** | Core focus on Machine Learning Algorithms, SQL and Data Structures.

### **Bachelor of Science in Computer Science**

*Bhavan's Vivekananda College*

June 2017 – September 2020

*Hyderabad, India*

- **CGPA: 8.81** | Specialised in Mathematics, Statistics and Computer Science.

## **Additional Information**

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**Certifications:** Advanced Certification in ML and DL – IIIT Bangalore.

**Languages:** English (Professional), Telugu (Native), Hindi, German (Beginner).

**Notice Period:** Immediate / Negotiable.