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Srinath Tummala

Data Scientist

SUMMARY

Data Scientist with 3+ years of experience building AI-powered solutions with a strong focus on Natural Language Processing, Generative AI, and Large Language Models (LLMs). Proven expertise in implementing Retrieval-Augmented Generation (RAG), prompt engineering, and intelligent agent workflows. Skilled in end-to-end model development—from data preprocessing and training to evaluation and deployment in production environments. Passionate about leveraging AI to solve real-world problems through innovation, scalability, and performance optimization. Actively exploring Reinforcement Learning and responsible AI development, with a strong interest in ethical AI systems.

EDUCATION

MSc. in Data Science
Oct '20 - Jul '22

GITAM University
Hyderabad, IN

CGPA - 8.89
Specialization - Data Science

BSc. in Computer Science
Jun '17 - Sep '20

Bhavan's Vivekananda College
Hyderabad, IN

CGPA - 8.81
Specialization- Mathematics, Statistics and Computer Science

TECHNICAL SKILLS

Languages & Frameworks: Python, C, Java, PyTorch, TensorFlow, Scikit-learn, Keras
LLM & GenAI Tools: Transformers (Hugging Face), LangChain, Prompt Engineering, OCR, EasyOCR
NLP & Deep Learning: Tokenization, Named Entity Recognition, Attention Mechanisms, Text Classification
Data Tools: NumPy, Pandas, Matplotlib, Seaborn, Plotly, Statsmodels
Databases: SQL, MongoDB, NoSQL
APIs & Frameworks: FastAPI, Flask, Streamlit
Version Control & DevOps: Git, GitHub, Bitbucket
Other Tools: Microsoft Excel, LaTeX, Google Colab, Jupyter, Anaconda

PROFESSIONAL EXPERIENCE

Data Scientist
Dec '23 - Present

App Orchid India Pvt Ltd.
Hyderabad, IN

App Orchid Enterprise Solutions: Empowering enterprises with AI-driven insights and actions for seamless digital transformation.

- Worked on Retrieval-Augmented Generation (RAG) pipelines integrating LLMs with structured enterprise data.
- Implemented Bayesian inference models (MCMC, clustering, trend detection) for enterprise analytics.
- Integrated LLMs into analytics platforms for natural language query resolution and data summarization.
- Built and maintained prompt templates for various business use cases, improving response accuracy.
- Contributed to a text-to-SQL pipeline that converted user queries into executable database statements.

Junior Data Scientist
Jul '22 - Dec '23

Onpassive Technologies Pvt Ltd.
Hyderabad, IN

Product Based AI Technology Company developing fully autonomous Software as a Service (SaaS) products for global clientele.

- Contributed to LLM-based modules including Speech Translation, Smart Compose, Sentence Correction, and eKYC automation.
- Used pre-trained Transformer models for OCR, text generation, and language correction; applied deep learning for face recognition systems.
- Designed modular APIs using FastAPI for scalable AI microservices, enabling seamless integration across various products.
- Applied feature engineering and ML pipelines for text preprocessing, vectorization, and classification.
- Participated in integrating multiple models into production workflows using Python-based microservices.
- Collaborated on containerizing AI modules with Docker to streamline deployment and improve reproducibility.

Data Science Intern
Jan '22 - Apr '22

Onpassive Technologies Pvt Ltd.
Hyderabad, IN

Product Based AI Technology Company developing fully autonomous Software as a Service (SaaS) products for global clientele.

- Worked on an email classification system using NLP techniques to categorize emails into social, primary, promotions, and updates.

PROJECTS

- **OpenAI-Based Document Search Assistant (RAG-powered) | Tech Stack : Generative AI, Python | Apr ’25 – May ’25**
  - Built a Retrieval-Augmented Generation (RAG) system to allow users to query domain-specific documents using natural language.
  - Used **OpenAI GPT-4** as the language model and **FAISS** for semantic vector search over chunked document embeddings.
  - Implemented a modular pipeline with document preprocessing, chunking, embedding generation (via `text-embedding-ada-002`), and context-aware prompting.
  - Developed the app using **Streamlit** and **FastAPI**, enabling a chat-based interface for document Q&A.
  - Optimized retrieval relevance by adjusting chunking granularity and prompt context window size.
  - Hosted via local server with a scalable backend structure for future deployment to AWS/GCP.
- **Master Thesis - Malicious URL Detection | Tech Stack: Python | Mar '22**
  - Built a classification model using AdaBoost and Random Forest to detect malicious URLs using lexical and binary features.
  - Engineered 17 handcrafted features and improved prediction performance via Voting Classifier ensemble.
  - Achieved high accuracy and precision on a 450k+ sample dataset.
- **Exploratory Data Analysis - Loan Default Dataset | Tech Stack: Python | Jul '22**
  - Conducted deep EDA on LendingClub dataset using Python, revealing key risk indicators across multiple user segments.
  - Applied univariate, segmented univariate, and multivariate analysis to identify drivers of loan default.
  - Delivered actionable business insights using Seaborn and Plotly-based data visualizations

CERTIFICATIONS

- Advanced Certification Program- ML and DL |https://www.credential.net/cd351c15-571f-41d1-a39f-dee5c2750553#acc.njkJeqWt | IIIT Bangalore | Feb'24

ADDITIONAL ACHIEVEMENTS & VOLUNTEER EXPERIENCE

- Received second prize for my android Application - Onestop at a College-level Tech competition during my Bachelor's.
- Honored with "Mr. Computer genius 2019" award for my achievements and projects in Computer Science.
- The app which I have developed "Bhavan's Vivekananda College App" is being officially used by the college with over 2000+ users.
- Worked as Vice President of Bhavan's Core Division in an organization called Street Cause which is the largest student-run NGO.