

# JAGATH J G

## Aspiring Data Scientist

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### PROFESSIONAL SUMMARY

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A graduate of computer science engineering with a solid background in data analysis and programming who is now honing their data science skills. knowledgeable about automation, machine learning, and predictive modeling, and passionate about using technology to address practical issues. In order to produce useful, significant solutions, I'm constantly keen to learn about and investigate new analytics and AI tools.

### EXPERIENCE

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**Chief Technical Officer** - Innovation and Entrepreneurship Development Cell 2021 – 2023

I oversaw projects like Idea Fest, AI workshops, and IoT sessions as CTO at IEDC to make sure students had practical experience with cutting-edge technologies. I oversaw projects like an automated hand sanitizer dispenser and gave hands-on experience with real-world applications. In order to help students stay ahead in the rapidly changing tech landscape, I concentrated on bridging the gap between academia and industry by encouraging innovation, technical skills, and teamwork.

### PROJECTS

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#### MUSIC RECOMMENDATION SYSTEM

Designed a personalized recommendation system using collaborative filtering and content-based filtering to suggest songs based on user preferences. Processed and analyzed user data with machine learning algorithms in Python, improving recommendation accuracy and user engagement.

#### Stateful Conversational AI with LangGraph SQLite

Designed and implemented a persistent stateful conversational AI using LangGraph's StateGraph with SQLite checkpointing for multi-session context retention. Developed modular chatbot architecture leveraging LangChain's ChatOpenAI and typed state management to handle dynamic message flows with robust state recovery.

### SKILLS

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**Languages :** Python, SQL

**Data Science & Analytics :** EDA, Statistics, Data visualization, Pandas, NumPy, Power BI, Excel

**Machine Learning & AI :** XGBoost, CatBoost, LightGBM, Scikit-learn, Hyperparameter Tuning, PyTorch, TensorFlow, CNNs, RNNs, Transformers, GANs

**LLM Agentic Frameworks :** LangChain, LangGraph, AutoGen, CrewAI, Hugging Face Transformers

**Deployment MLOps :** Streamlit, FastAPI, Flask, Docker, MLflow

**Automation & Robotics :** ROS (Robot Operating System), Arduino, Raspberry Pi, IoT Automation

### EDUCATION

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**Bachelor of Technology in Computer Science and Engineering** 2020 – 2024  
Ponnaiyah Ramajayam Institute of Science & Technology

### CERTIFICATIONS

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**Data Science and Artificial Intelligence**

Boston Institute of Analytics