

Premkumar

AI Engineer | Data Scientist | Python Developer
Master of Science
Bishop Heber College, Trichy

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EDUCATION

- **Master of Science in Computer Science** 2022-24
Bishop Heber College, Trichy CGPA: 7.53
- **Bachelor of Science in Computer Science** 2019-22
Bishop Heber College, Trichy CGPA: 7.53

WORK EXPERIENCE

- **AI Engineer** Mar 2025 - Present
Digidara Technologies Pvt Ltd Onsite
 - Developed and evaluated machine learning models on real-world datasets, improving prediction accuracy by 15 percent for client projects.
 - Built deep learning pipelines using PyTorch and TensorFlow, achieving 92 percent accuracy in image classification and NLP-based recognition.
 - Leveraged LLMs (e.g., Mistral, Gemini) to automate content generation and summarization workflows, reducing manual effort by 60 percent.
 - Designed autonomous agents using LangChain and Qdrant vector storage, enabling dynamic user personalization and memory-based responses.
 - Implemented prompt engineering and RAG architecture using Qdrant and Gemini/Ollama, increasing LLM response relevance by 35 percent.

PROJECT EXPERIENCE

- **Student Mental Health Support Chatbot** 2025
Developed a personalized AI chatbot for student mental health support using LangChain and LLMs.
 - Built an agentic AI system using LangChain and Mistral model, leveraging Qdrant for vector storage to provide personalized responses for student mental health queries, achieving 90 percentage user satisfaction.
 - Implemented Retrieval-Augmented Generation (RAG) with user login credentials to retrieve previous chat history from Qdrant, enabling the LLM to ask users if provided tips were useful, enhancing personalized interaction and feedback collection.
 - Technology Used: Python, Flask, LangChain, LLM, Vector Database(Qdrant), RAG
- **AI-Powered Chatbot for Portfolio Website** 2025
Designed and deployed an AI-powered chatbot for my portfolio site, increasing engagement by 40 percent.
 - Developed a full-stack chatbot using Python, Flask, and LangChain for buffer memory, integrating Gemini API for natural language generation, improving user engagement by 40 percentage.
 - Implemented prompt engineering to refine LLM outputs, ensuring accurate and concise responses for diverse user queries.
 - Utilized GitHub for collaborative development and version control, streamlining deployment of updates.
 - Technology Used : Python, Flask,HTML,CSS,JS and LLM,LangChain
Portfolio: <https://ai-entou.onrender.com/>
- **Student Mental Health Analysis with Data Science** 2025
Data Science
 - Conducted EDA and preprocessing on survey data using Python and Pandas to identify mental health patterns.
 - Built a Random Forest Classifier to predict mental health status, achieving high accuracy in risk identification.
 - Designed an interactive Power BI dashboard visualizing mental health trends by gender, age, and academic pressure.
 - Technology Used: Python, Pandas, Scikit-learn, MySQL, Power BI
Linkedin: [ViewDashboard](#)

TECHNICAL SKILLS AND INTERESTS

Languages: Python, HTML, CSS, JavaScript
Frameworks: Flask, LangChain
Libraries : NumPy, Pandas, PyTorch, TensorFlow, Scikit-learn, Matplotlib
Web Dev Tools: GitHub, Git, VS Code, Docker, Power BI
Cloud/Databases: Relational Database(mySql) , Vector Database(Qdrant)
Areas of Interest: AI Engineering, Data Science, Full Stack Development
Soft Skills: Problem Solving, Adaptability, Fast Learning, Self-Driven