Premkumar

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 - Present*
Digidara Technologies Pvt Ltd   Onsite

  – Machine Learning for data-driven model development and evaluation.
  – Deep Learning with neural networks for classification, prediction, and recognition tasks.
  – Generative AI using LLMs for content creation, summarization, and workflow automation.
  – Agentic AI with LangChain to build goal-driven autonomous agents
  – Project Development using GitHub and Python for end-to-end AI applications.
  – Prompt Engineering RAG (Retrieval-Augmented Generation) using Qdrant with Gemini API or Ollama.

PROJECT EXPERIENCE

• **Student Mental Health Support Chatbot**   *2025*
Built AI chatbot for personalized mental health support.

  – 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*
Built AI chatbot, boosting portfolio engagement.

  – 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-entu.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+JS
Libraries : NumPy, Pandas, PyTorch, Matplotlib, TensorFlow,scikit-learn
Web Dev Tools: VScode, Microsoft Power BI, Github, Git, Docker
Frameworks: Flask, LangChain
Cloud/Databases: Relational Database(mySql) , Vector Database(Qdrant)
Areas of Interest: Python Developer, Machine Learning Engineer , Full Stack Developer, AI Engineer, Data Scientist, Data Analyst, Full Stack Developer
Soft Skills: Problem Solving, Self-learning, Quick Learning, Adaptability