

Umarani M

✉ umarani180305@gmail.com ☎ +91 9790034654 📄 umarani1835 📍 Tiruppur

Summary

Aspiring ML Engineer with a strong interest in machine learning and quantum computing. Skilled in Python and using tools like Qiskit for developing algorithms. Experienced in building web applications with Django and managing databases with PostgreSQL. Familiar with machine learning techniques and quantum algorithms. Excited to work on innovative projects.

Work Experience

Quantum Computing Developer Intern

Apr 2024 – July 2024

KwantumG Research Labs Pvt. Ltd., Bangalore

- Collaborated with the research team to explore real-world use cases of quantum algorithms in classification, pattern recognition, and language understanding.
- Developed the backend of demo.kwantumg, a sandbox-style learning platform enabling beginners to experiment with quantum algorithms using popular frameworks.
- Built and maintained the platform using Django and PostgreSQL, ensuring scalable backend operations and smooth integration with quantum libraries.

Education

B.Tech in Information Technology - 8.71/10

2022 - 2026

KPR Institute of Engineering and Technology

Projects

demo.kwantumg Platform

demo.kwantumg.com

- Developed the back end of an interactive web platform designed to help beginners explore and experiment with quantum algorithms in a sandbox-style environment.
- Implemented Django-based backend architecture and integrated PostgreSQL for secure and efficient data management.
- Integrated multiple quantum computing frameworks to enable real-time experimentation and simulation of quantum circuits.

Legal Bert Advisor

legal_bert

- Designed and deployed a Flask-based Legal Bot Advisor that predicts whether a case is criminal or civil using a machine learning model.
- Implemented a lawyer recommendation system based on case type and district, improving legal accessibility and user experience.
- Built a secure user-lawyer communication interface with authentication for both roles, using HTML, CSS, JavaScript, and SQLAlchemy for full-stack functionality.

Potato Leaf Disease Prediction System

potato_disease

- Developed a web-based system for accurate prediction of potato leaf diseases using a trained CNN model.
- Implemented the backend using Django to handle data processing and model integration.
- Designed a responsive and user-friendly front end using HTML, CSS, and JavaScript.

Skills

Programming Languages: C, Python, Java (Basic)

Frameworks: Django, Qiskit

Databases / Tools: PostgreSQL, MySQL, Ubuntu, Figma

Version Control: GitHub

Soft Skills: Analytic Thinking, Team Coordination, Efficient Planning, Problem Solving

Achievements

- **Competitive Coding:** 5-star gold badge in Problem Solving (HackerRank), 200+ problems solved on LeetCode.
- **Certifications:** Elite+Silver in Foundations of R Software (NPTEL), Introductory course on Quantum Computing (IISER Pune).
- **Leadership:** Chair of IEEE Information Theory Society.