Unais I

Coimbatore | 6381842639 | unais0397@gmail.com | linkedin.com/in/unais0397

Education

BTech Major in EEE and Minor in AIML — **CGPA: 8.0**
Amrita School of Engineering, Coimbatore. — *2022 – 2026*

Secondary & Higher Secondary Education — **SSLC: 86.6%, HSC: 87.2%**
Ramco Vidya Mandir Senior Secondary School, Ariyalur. — *2018 – 2022*

Experience

Electrical Engineering Intern — July 2024
Dalmia Cement (Bharat) Ltd. — *Ariyalur, Tamilnadu*

- **Gained knowledge** of **cement manufacturing** from **raw material processing** to **final production**
- **Analyzed the 110 kV yard**, studying **power distribution** from the **grid** to **factory operations**
- **Explored kiln operations** and **simulation models** for **automated process control**
- **Dismantled and examined AC induction motors**, studying **construction** and **starting methods**

Projects

IoT-Driven Peak Load Shifting | *ESP32, IoT, ML, TensorFlow Lite, Cloud, Web UI* — Dec 2024 – Feb 2025

- **Designed an IoT-based system** for **peak load shifting using battery storage** to optimize energy efficiency
- **Collected real-time energy data** from **IoT sensors** and **sent it to the cloud** for **analysis** and **prediction**
- **Trained and compressed a machine learning model** using **TensorFlow Lite** for **deployment on ESP32**
- **Deployed the ML model on ESP32** for real-time decision-making and efficient energy management
- **Developed a web UI** to **monitor energy consumption, battery status,** and **overall system performance**

Multiple Disease Prediction System | *Python, NumPy, Pandas, Scikit-learn, Streamlit* — Aug 2024 – Nov 2024

- **Built an ML system** to **predict diabetes, heart disease,** and **Parkinson's disease** using **Scikit-learn**
- Processed medical data with **NumPy** and **Pandas** for **feature extraction** and **model training**
- **Deployed the model using Streamlit** to enable real-time predictions via a web interface
- **Designed an interactive UI** for seamless user input and instant health risk assessment

Ambulance Routing and Traffic Management System| *Graph Algo, Python, Web UI* — Aug 2024 – Nov 2025

- Developed a software-based system to **optimize ambulance routes** and **minimize emergency response time**
- **Implemented graph algorithms** to **compute the shortest** and **least congested paths dynamically**
- **Simulated real-world traffic conditions** to enhance route efficiency and avoid bottlenecks
- **Designed a web-based dashboard** to visualize ambulance locations, traffic data, and optimized routes

Achievements

- **Currently enrolled in** "Artificial Intelligence and Edge Computing**" course offered by L&T**, gaining expertise in **AI-driven optimization** and **real-time processing**; expected completion by the end of this semester
- **Actively solving DSA problems (170+ so far)** through an ongoing Python DSA course **on GeeksforGeeks (geeksforgeeks.org/user/unais0397/)**, strengthening algorithmic thinking and coding proficiency
- **Built full-stack web development skills** by completing **Frontend** and **Backend** modules; currently working on the **Database module** to complete the course

Technical Skills

Programming Languages: Python, C, MATLAB, HTML, CSS, JavaScript, SQL(Postgres)
Frameworks / Librariess: ReactJS, NumPy, Pandas, Scikit-learn, TensorFlowLite
Technologies: Firebase, PostgreSQL, MySQL, GitHub, ETAP, MATLAB, REST API, Big Data
Others: Git, DSA, OOPs, Machine Learning, Power Systems, IoT, Embedded Systems, Electrical Machines, Digital Signal Processing (DSP)