# FAWAZ AHMED ANWAR BATCHA

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in LinkedIn Profile | Github Profile

Chennai, Tamil Nadu-India

# **OBJECTIVE**

Highly-Motivated individual with a strong desire to take on new challenges. Adept at working effectively unsupervised and quickly mastering new concepts. Seeking an entry-level role to apply knowledge and hands-on experience to contribute to innovative projects and real-world problem-solving. Quick learner with a strong work ethic and adaptability.

## **EDUCATION**

Vellore Institute of Technology(VIT)

B.Tech Electronics and Communication Engineering Ideal Indian School

Secondary Education

May 2025

Chennai, India May 2021

Doha, Qatar

# **PROJECTS**

#### IoT-Based Drinking Water Quality Monitoring System

Tools: ESP32, TDS/EC Sensor, DS18B20 Sensor, OLED Display, Thingspeak IoT Platform

March 2024 - May 2024

- Developed an IoT-based system to monitor drinking water quality by measuring electrical conductivity and temperature, and implemented real-time data transmission to the Thingspeak platform by integrating ESP32 with TDS/EC and DS18B20 sensors.
- Created a display for water quality parameters on an OLED screen, ensuring compliance with WHO standards for safe drinking water, and applied sensor integration techniques to analyze water quality parameters.

## • Real-Time Prediction and Optimization of Solid Waste Generation Patterns

August 2024 - November 2024

Tools: Python, Google colab, Kaggle Datasets

- Developed a predictive and optimization framework for urban solid waste management using SARIMA, XGBoost, and Meta-Regressor, achieving high accuracy in forecasting waste generation patterns and optimizing waste collection schedules.
- Implemented real-time data processing and feature engineering using Kaggle datasets, handling large-scale time-series data to support decision-making and improve model performance with Optuna-based hyperparameter tuning.

## Temperature Controlled Fan Using Arduino

March 2024 - May 2024

Tools: Arduino Uno, DHT11 sensor, 16x2 LCD, DC Fan, potentiometer, Arduino IDE

- Developed an energy-efficient fan system using Arduino technology, featuring real-time monitoring, dynamic speed adjustment, and user interface elements for versatile applications in various environments.
- · The system's modular design allows for scalability and customization, demonstrating the potential for practical applications in temperature regulation for server rooms, households, and industrial settings.

#### Voice-Controlled and Obstacle-Avoiding Robotic Car

March 2024 - May 2024

Tools: Arduino UNO, HC-05, ultrasonic sensor, L298N, DC motors, MIT App Inventor, Arduino IDE.

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- Devoloped a voice-controlled robotic car, equipped with an Arduino UNO, HC-05 Bluetooth module, and ultrasonic sensors, uses Google Speech Recognition for wireless control and autonomous navigation.
- · The project showcases seamless human-robot interaction, safe navigation, and modular design, showcasing integration of robotics, IoT, and automation technologies for scalability and future enhancements.

## SKILLS

- Programming Languages: C, Python
- Cloud Technologies: AWS (Amazon Web Services)
- DevOps & Version Control: Git, Github
- Mathematical & Statistical Tools: Matlab-Simulink
- Other Tools & Technologies: Visual Studio Code(VSC), Microsoft Office Suite (Word, PowerPoint)

#### CERTIFICATIONS

- AWS Certified Cloud Practitioner (AWS CP)
- AWS Certified Solutions Architect Associate (SAA)
- MATLAB Onramp

February 2024

October 2024

July 2023

#### LANGUAGES

English (Upper Intermediate) Tamil (Native/Bilingual)