# Azharuddin Alam

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# **EXPERIENCE**

# Foretech Engineering Solution Pvt. Ltd. - India | Software Engineer - IoT & Cloud Telemetry

Jan 2025- Present

- Tech stacks used: AWS Cloud (IoT Core, Lambda), Azure IoT Hub, MySQL, Power BI, MQTT, Python, Postman
- Designed and deployed real-time telemetry pipelines for industrial IoT systems using Azure IoT Hub and AWS IoT Core, enabling secure data transmission from PLCs with 99.9% uptime.
- Integrated industrial controllers (e.g., Modicon TM262M) with MQTT, improving remote monitoring efficiency by 40%.
- Automated SAS token renewal for Azure IoT Hub, reducing manual intervention by 100% and improving device connectivity reliability.
- Built custom Lambda & Azure Functions for telemetry filtering and routing, reducing data processing time by 35% and enabling scalable analytics.

# **PROJECTS**

# Real-Time PLC Telemetry Dashboard using AWS IoT & Power BI

FEB 2025 - Mar 2025

- Engineered an end-to-end real-time PLC-to-cloud data pipeline, reducing latency from 10s to under 3s for telemetry visualization.
- Integrated PLC with MQTT to securely publish voltage, current, RPM, and temperature, ensuring 99% accurate data ingestion.
- Implemented AWS IoT Rules and DynamoDB for storage and Lambda for downstream processing, enabling real-time anomaly detection.
- Designed Power BI dashboards with time-based filters (hourly, daily, monthly), improving decision-making speed by 25%.

# Extruder Machine Monitoring Dashboard – Real-Time Industrial Analytics

Apr 2025 - Jul 2025

- Developed a real-time monitoring dashboard for extruder machines, improving maintenance response time by 30%.
- Visualized KPIs such as production (km), energy usage (kWh), material consumption, and downtime, driving 15% efficiency
- Implemented predictive analytics on machine health to reduce unplanned downtime by 20%.

#### SKILLS

- Database & Querying: SQL, DBMS, MySQL
- Data Visualization & Analytics: Power BI, DAX, Excel, Matplotlib, Seaborn
- PROGRAMMING & LIBRARIES: Python, Pandas, NumPy, Scikit-learn, OpenCV, Machine Learning, Feature Engineering, Data Preprocessing
- Frameworks & APIs: Flask, FastAPI
- Version Control & Tools: Git, GitHub, Postman, VS Code
- Web & Cloud Technologies: HTML, CSS, JavaScript, AWS Cloud, Azure Cloud
- IoT & Cloud Integration: MQTT, HTTP, PLC-to-AWS Data Pipeline, AWS IoT Core, AWS DynamoDB, IoT Protocols

# **EDUCATION**

# **Greater Noida Institute of Technology**

Greater Noida, India Sep 2020 - May 2024

Bachelor of Technology, Computer Science and Engineering – 7.57 CGPA

Coursework: Operating Systems, Database Management Systems (DBMS), Computer Networks, Algorithms, Data Structures, Machine Learning, Software Development Lifecycle (SDLC), Data Analytics.

# **CERTIFICATIONS**

- Data Analytics Course Certificate PhysicsWallah, Jan 2025.
- SQL Beginner to Advanced For Data Professionals Codebasics, Feb 2024.
- SQL Fundamentals Certificates HackerRank, Feb 2024.
- SQL Lessons Certificate Codechef, Aug 2023.