

Muhammad Mahir
Linktree

Email: hmmahir2001@gmail.com
Mobile: 0340-7470923

Software Engineer with 3 year of experience & strong foundation in Golang, AWS, SQL Databases, containerization & IAC (Terraform), .NetCore, Angular, JavaScript & TypeScript. Actively expanding skill set through hands-on experience with emerging technologies, frameworks, and cloud-native tools.

EXPERIENCE

- **NeoCharge** Remote
Jan 2025 – Present
 - *Senior Software Engineer*
 - **Architect and maintain backend services:** Designed and maintained modular Go microservices following Domain-Driven Design (DDD) and clean architecture to power real-time EV charging operations and secure IoT communications.
 - **Establish secure device provisioning pipelines:** Built a Go-based certificate authority service to automate mutual TLS (mTLS) workflows, enabling secure onboarding, policy management and communication between EV smart splitters and the Mochi MQTT broker integrated with Redis-backed persistent sessions.
 - **Implement custom MQTT infrastructure:** Integrated Mochi MQTT broker (Go-native) with Redis for persistent device sessions, replacing Mosquitto and enhancing reliability, observability, and performance of device messaging.
 - **Build CI/CD pipelines and test environments:** Engineered GitHub Actions workflows to build, test, and deploy Dockerized services to AWS Elastic Beanstalk. Created realistic, TLS-enabled Redis testing environments using Docker Compose and ‘testcontainers-go’ for integration testing.
 - **Integrated and optimized third-party data services:** Integrated multiple external APIs to enhance smart charging: **ENODE** for energy provider integrations, **EVOX** for dynamic vehicle imagery, **LEAP** for demand response events, **RevenueCat** for subscription and entitlement management, **OPENEI** and **WattTime** for energy pricing and emissions data.
 - **Improve observability and fault tolerance:** Integrated multiservice Go deployments with Datadog for application monitoring, alerting, and log aggregation, ensuring high availability and quick incident response.
- **Octopus Digital (Avanceon)** Lahore, Pakistan
April 2023 – Dec 2024
 - *Full Stack Developer*
 - **Industrial IoT Platform (OmniConnect):** Built scalable modules for asset/tag hierarchy, real-time monitoring, and configuration management
 - * **Asset and Tag Management:** Designed scalable workflows with configurable search filters, paginated data views, and bulk data operations (Excel/CSV import/export) for efficient asset tracking
 - * **Audit Logging & Monitoring:** Enabled complete activity logging and enhanced alarm systems with custom filters
 - **Fuel Management System (Fintech Feul):** Developed data-driven dashboards and UI modules for fleet efficiency, pump configuration, and plant settings
 - **Frontend Engineering:** Led Angular-based UI development with role-based access controls and configurable interface components, improving user experience and maintainability.

EDUCATION

- **FAST NUCES** Lahore
 - *Bachelor of Science in Computer Science with a focus on programming languages and software development.*

CLIMATE TECH APPRENTICE

C2C LaunchPad — Remote

- **Climate Solutions Research:** Explored 7 climate tech sectors (CTVC) and 93 Project Drawdown solutions to identify high-impact technologies
- **Startup and Market Analysis:** Developed a project inspired by ClimateTechList, focusing on sector trends, business models, and innovation gaps.
- **Clean Energy and EV Charging Focus:** Gained insight into electrification, energy infrastructure, and EV charging ecosystem.
- **Technical and Communication Skills:** Strengthened climate market research, stakeholder engagement, and cross-sector collaboration.

TECHNICAL SKILLS

- **Backend:** Go (Fiber, GORM, Echo), REST APIs, Domain-Driven Design, Unit and integration testing, System reliability improvement, and Performance optimization
- **Database:** PostgreSQL, Amazon RDS, Redis, DynamoDB
- **DevOps and Cloud:** AWS (Lambda, Beanstalk, S3, RDS, MQ), Azure (App Service, Functions, VM, Logic Apps, Digital Twins), Terraform, Docker, GitHub Actions, Datadog, CloudWatch
- **Frontend:** TypeScript, JavaScript, Angular, HTML/CSS