

Mustahoshin Hossain Ahamed Afif

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Professional Summary

Technology professional with 4+ years of experience across software engineering, embedded systems, and business analysis, working across Malaysia, Singapore, and Bangladesh. Builds and ships production systems spanning IoT infrastructure, LLM-based automation, and enterprise workflows. Operates effectively across both technical execution and client-facing strategy, having directly engaged government ministries, banks, and fintech companies to scope, propose, and deliver solutions.

Work Experience

IT Business Analyst, Mysoftheaven (BD) LTD. – Dhaka, Bangladesh 01/2026 - Present

- Designed and deployed automation systems and in-house platforms using LangChain-based agents and n8n workflows for enterprise, banking, fintech, and government clients across Bangladesh.
- Manage ongoing client engagements with Bangladesh Parliament, Ministry of Land, BTRC, Dhaka University, and multiple Bangladeshi banks, while serving as the local B2B partner liaison for Epic Lanka (Sri Lanka), coordinating fintech solution deployment across the banking sector.
- Represent Mysoftheaven (BD) Ltd. in government and executive-level meetings, independently closing new client accounts and influencing procurement decisions across multi-stakeholder processes.
- Authored and presented detailed technical proposals and solution architectures for government clients, translating system capabilities into requirements-aligned documentation that progressed procurement.
- Lead Digital Marketing, AI, and Business Teams while owning solution scoping, technical feasibility assessments, and project roadmaps across domestic and international engagements.

Lead Engineer (Software & Hardware) and Researcher, SystemSage Solutions – 08/2023 - Present
Malaysia & Bangladesh

- Architect and oversee development of monitoring and control software systems, including system design, data flow architecture, and backend infrastructure for real-time operations.
- Design and deploy IoT ecosystems using analog/digital environmental sensors for connectivity-constrained environments, with MQTT and LoRaWAN as primary transport layers.
- Lead embedded system development covering firmware optimization, hardware interfacing, and power tuning for long-term field deployments.
- Translate research outcomes into deployable prototypes, contributing to peer-reviewed publications in IEEE and IET conferences.
- Conduct feasibility studies, hardware validation, and iterative prototyping to verify system reliability before field deployment.

Software Engineer, Nestron House – Malaysia & Singapore 09/2022 - 08/2023

- Built and optimized full-stack web systems using Spring Boot, Laravel, Vue.js, and PostgreSQL for smart home product operations.
- Designed and implemented backend workflow automations using n8n and HubSpot APIs, reducing manual data processing overhead by approximately 30%.
- Developed internal management software using REST APIs and Angular to consolidate and streamline technical data pipelines.

Skills

AI & Intelligent Automation: LLM Integration (LangChain, LlamaIndex, RAG pipelines), AI Agents (n8n, Node-RED, Custom Python), Applied ML (TensorFlow Lite for edge inference), Real-time Anomaly Detection

IoT & Embedded Systems: Microcontrollers & Firmware (FreeRTOS, Bare-metal C/C++, OTA pipelines), Connectivity Protocols (MQTT, LoRaWAN, NB-IoT, 4G/LTE), Hardware Protocols (I²C, SPI, UART), Edge Computing

Software Architecture & Cloud: Backend Design (Spring Boot, Laravel, REST/gRPC), Frontend (Vue.js, Angular), Cloud & DevOps (AWS IoT Core/EC2, Docker, CI/CD), Data Architecture (PostgreSQL, Kafka, Redis)

Programming & Core Engineering: C/C++, Python, Java, PHP, TypeScript, Data Structures & Algorithms (DSA), Secure Boot, Firmware Signing

Education

UCSI University, Bachelor of Computer Science (Hons) in Mobile Computing and Networking – Kuala Lumpur, Malaysia 2020-2023

- **First Class Honors** (GPA 3.94/4.0); Recipient of the UCSI Trust Scholarship.
- Awarded multiple Dean's List Certificates for sustained academic and technical excellence.
- Published original research in IEEE and IET focused on sustainable smart technology.

Research Publications

- M. H. A. Afif, J. Iqbal, S. S. Borshon, R. I. Junayed and S. Ahamed, "An IoT-based smart farming solution for sustainable agriculture: integrating AI, cloud computing, and 4G communication for enhanced productivity," 2024. doi: 10.1049/icp.2025.0238.
- M. H. A. Afif, J. Iqbal and K. H. Keoy, "Improvised domotics a smart assist meeting sustainability," 2023. doi: 10.1049/icp.2023.1787.

Impactful Projects

- **Smart Agri-Tech & Aquaculture Ecosystem:** Engineered embedded systems using real-time analog/digital sensors connected to a centralized cloud framework, reducing resource waste through telemetry-based monitoring and analytics. [FarmGenius] [FarmGenius Aqua]
- **Enterprise Workflow Engine & AI Automation:** Built custom software-hardware integrations and deployed LLM-agent-based automation systems to handle high-volume technical operations and structured data flows.
- **Secure IoT Infrastructure:** Architected encrypted cloud connectivity for industrial asset tracking, maintaining data integrity across constrained hardware communication channels. [GPS Fleet Tracker] [HTTPS SSL Data Sender] [4G Cellular Firebase Data Sender]

Awards

- Best Research Paper Award – GEn-CITY (2024); Recognized for contributions to sustainable technology.
- Champion – RCF Tech Fest (2026); Recognized for innovative technical solution design.
- Champion – RUET Pre-Seed Funding Jury Day (2025); Awarded for business-viable tech innovation.
- 1st Runner-Up – Youth Startup Summit (2025); Awarded for technical pitch development.
- Nominated as ICSDI Valedictorian for first-class honours academic achievement, 2024.
- Bronze Award – Smart Home Project, International Virtual Expo of Innovation Product and System Design (2023), Malaysia
- UCSI Trust Scholarship (2021–2023).

References

- **Dr. Javid Iqbal** Senior Lecturer, School of Engineering and Technology, Sunway University, Malaysia
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- **Chor Chee Hoe** Chief Executive Officer, Qarbotech Sdn. Bhd., Malaysia
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