

HAZRIEN BIN NAZMAN

Product Manager & IoT/Backend Developer

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🌐 Hazrien Nazman 📅 1996/02/29



Profile

Software engineer with **5 years of experience** in IoT and backend development, specializing in **Node.js, ESP_IDF, MQTT, Docker and Server**. Currently working at **T05 Technologies Sdn Bhd** as a **Product Manager and IoT Developer**. Passionate about building innovative solutions that drive technological advancement.

Work Experience

01/2025 – present
Kelana Jaya, Selangor

T05 Technologies Sdn Bhd

Product Manager & IoT/Backend Developer

- Product Owner for Nebula IoT Management System (NIoTMS)
- Owned and maintained five Nebula products (NebulaMQTT, NebulaMQTT V2, Yallvend, T05 Helmet Washer, and Synapse Coin SIM), ensuring seamless functionality and reliability.
- Improved system uptime to 90% during peak holiday seasons.
- Lead the development of NebulaMQTT and NebulaMQTT V2, overseeing backend, frontend, and firmware development.
- Lead Developed backend infrastructure for T05 Helmet Washer and Membership Allocation Redemption System (MARS).

02/2023 – 12/2024
Kelana Jaya, Selangor

T05 Technologies Sdn Bhd

IoT Developer and Technical Support Specialist and Nodejs Backend Developer

- Developed an MQTT client using Node.js and MQTT NPM, improving real-time communication between devices
- Set up and optimized MQTT Docker on the server, ensuring secure and efficient private broker operations.
- Led R&D for Nebula MQTT, enhancing device connectivity and performance by 30%.
- Designed PCB for NebulaMQTT, reducing production costs by 20% and improving device reliability.
- Architected IoT solutions for NIoTMS, ensuring scalable and robust system integration.
- Provided technical support for IoT products, resolving 95% of issues within 24 hours.
- Developed scalable API for Nebula Backend, enhancing data processing efficiency by 25%.
- Developed 1SEA super app using MERN stack
- Implemented 1SEA using MERN stack, resulting in a seamless user experience and high app performance.
- Implemented robust security features in 1SEA, ensuring compliance with industry standards and user data protection.

09/2021 – 01/2023
Shah Alam, Selangor

Myinvent Technologies Sdn Bhd

IoT Trainer and Technical IoT Developer

- Designed and delivered engaging and interactive IoT training courses using advanced training platforms, enhancing learning experiences for over 100 students.
- Created and maintained comprehensive course materials, including presentations, exercises, and assessments, which improved training completion rates by 20%.
- Stayed up to date on the latest developments in the IoT field and incorporated this knowledge into training courses, ensuring cutting-edge content.

- Mentored and supported over 50 students during and after training courses, leading to a 90% satisfaction rate in post-course surveys.
- Collaborated with clients to understand and address their customized IoT needs, improving client satisfaction by 25%.
- Utilized Python and Node.js to develop and optimize backend systems and dashboard UIs, enhancing user experience and data visualization.

Projects

01/2025 – present	NebulaMQTT IoT Version 2 <i>Lead developer for Frontend, Backend and Firmware</i> Developed and maintained the NebulaMQTT Firmware using ESP_IDF for ESP32-S3. Version 2 includes 2 pulse output, 1 pulse input, and 2 RS232 ports. An upgrade that the client asking for. RS232 opens up new possibilities for clients to record cash payments and enable QR pay for RS232 machines. And update the Nebula portal to support NebulaMQTT V2.
04/2023 – present	Nebula IoT Management System (NIoTMS) <i>Lead IoT Developer and NodeJS Backend</i> https://nebula.payrallel.io/login Developed the Nebula IoT Management System to transform unattended machines into smart devices with payment and sales tracking options. Utilised Node.js, Express, and MQTT to enable real-time data monitoring and remote management for over 20 clients, managing 300+ IoT machines. Implemented a scalable and secure system architecture, resulting in a 25% increase in operational efficiency.
10/2024 – 01/2025	1SEA Membership Allocation Redemption System (MARS) <i>Lead Nodejs Backend Developer</i> An upgrade for both 1SEA and T05Pay products. This enables the client/merchant to give out vouchers or points to their customer to redeem on a vending machine powered up by the T05pay system including the Nebula machine.
09/2023 – 01/2024	1SEA Super App <i>NodeJS Backend Developer</i> Portal 🔗 Google Play - 1SEA 🔗 App Store - 1SEA 🔗 Developed the backend for the 1SEA Super App and portal, serving both users and developers. Utilized Node.js and MongoDB to ensure efficient and scalable backend operations.

Education

09/2017 – 07/2020 Shah Alam, Malaysia	Bachelor of Engineering (Hons) Electronic Engineering <i>Universiti Teknologi MARA</i>
07/2014 – 09/2016 Dungun, Malaysia	Diploma in Electrical Engineering (Electronic) <i>Universiti Teknologi MARA</i>

Skills

Programming Languages:

- C, C++, Python, JavaScript

IoT Hardware:

- ESP32, Arduino, Raspberry Pi Pico, NRF52840, Sensors, Actuators, PCB Design

Software Development:

- Node.js, MERN stack, Docker, MQTT, JWT, OAuth

Networking:

- TCP/IP, HTTP, MQTT

Soft Skills:

- Adaptability and Flexibility
- Leadership and Management
- Problem-solving and Troubleshooting

References

Cayrin Ngo Xing Yee, *HR*, T05 Technologies Sdn Bhd
01116161446

Nelson Goh Seng Yip, *Technical Lead Developer*, T05 Technologies Sdn Bhd
nelson.nshdx@gmail.com, 0176438634

Certificates

Certificate of Completion - Blockchain Architecture

MyReskills IoT Program: Agriculture and Farming Industrial Revolution (I.R 4.0)

Introduction to Data Analysis Using Excel

Certificate of Participation - R Programming for Data Analytic CREST Industry-Certification (IndCert)

Level 4