Dzulfikar Ats Tsauri

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Profile

Solution Engineer with 4+ years of experience in digital manufacturing. Skilled in **Siemens Opcenter Execution, Mendix, MES integration, and Web Development**. Experienced in full-cycle development, deployments, change requests, and issue resolution. Background in **IoT and cloud platforms (AWS, Azure, Cloudflare)** supporting scalable MES solutions.

Professional Experiences

Opex Consulting Group, *MES Solution Engineer* ☐   Jul 2025
- Led Internal Product Development   Remote, Jakarta
- Resolved long-standing issues in a pseudo-MES project using **Mendix low-code platform**, improving performance, stability and usability.
- Delivered several **change requests** and enhancements for ongoing MES-related projects.
- Involved in **early-stage preparation** of Siemens Opcenter Execution implementation (requirement analysis, technical documentation, initial setup).

Albéa (PT. Techpack Asia), *IoT Developer*   Mar 2023 – Jul 2025
- Led the end-to-end design and budgeting of IoT architecture, integrating   Semarang, Indonesia
  ESP32, MQTT, and Node-RED for real-time monitoring of 200+ machines across
  Asia, **driving a 30% improvement** in uptime while optimizing deployment costs.
- Optimized and managed a project budget of $120,000, reducing hardware and infrastructure costs by 25% while maintaining system performance and scalability across 200+ machines.

Arcstone Pte. Ltd, *MES Deployment Engineer* ☐   Nov 2023 – Feb 2025
- Led full-cycle MES deployment for 3+ manufacturing clients, aligning tech   Remote, Singapore
  solutions with business goals and achieving 100% on-time delivery within
  allocated budgets.
- Coordinated with cross-functional teams (DevOps, QA, Client IT) to deploy robust MES solutions, reducing post-launch issues by 40% and enabling system scalability across facilities.
- Delivered technical demos and solution walkthroughs to non-technical stakeholders, resulting in 3 signed contracts and full executive buy-in by clearly mapping MES capabilities to business impact.

PT. Hexa Daya Solusi, *Industrial Automation Engineer* ☐   May 2022 – Dec 2022
- Built and deployed MQTT + ModbusTCP energy monitoring system, enabling   South Tangerang,
  20% reduction in energy waste and providing real-time analytics across   Indonesia
  multiple industrial units.
- Oversaw installation and commissioning of IoT nodes, ensuring >99% network uptime and seamless data collection for centralized dashboards.

PT. Azka Mulia International ☐

Business Development Officer   Jan 2022 – Mar 2022
- Designed and led go-to-market strategy, increasing client engagement by   Surabaya, Indonesia
  30% in new industrial segments within 3 months.
- Boosted online sales revenue by 25% through strategic marketplace optimization and targeted promotions.

Engineering Supervisor   Jan 2022 – Mar 2022
- Supervised a 5-person engineering team, reducing machine downtime by   Surabaya, Indonesia
  30% via proactive optimization and streamlined maintenance scheduling.
- Implemented condition-based maintenance model, reducing unplanned outages by 40% and extending machine life expectancy.
- Increased machine capacity by up to 50%.

Maintenance Engineer   Jul 2021 – Dec 2021
                                                                        Surabaya, Indonesia

Projects

Pseudo MES, *Freyabadi Indonesia*
2025
Jakarta
  Resolved long standing issues, improving performance, delivered several change requests.

Material Validation SCADA, *British American Tobacco (on 3 Departments)*
2023 – 2025
  Integrated SAP and KV-8000 PLC via ModbusTCP to create a fault-free material validation system. **Achieved 100% reduction in material mismatches.** Deployed in Azure Cloud.

eAndon, *Albea Group (Surabaya, Demak, Guangdong)*
2023 – present
  Developed and deployed real-time machine monitoring and ticketing systems using ESP32, MQTT, and Node-RED. **Reduced machine downtime by 30%** and enhanced operational transparency.

eCountboard, *Albea Group (Demak)*
2024 – present
  Develop WebApp to monitor production counting detailed into hour to ensure rapid response, utilizing RaspberryPi, NodeRED, Next.js

Manufacturing Execution System, *Fong's Engineering Singapore*
2024
  Tailored arc.ops solution for end-to-end MES solution, integrating with Microsoft Dynamics via RESTful API & CNC Machines via OPC-UA, Fanuc Focas, and Modbus

Lumileds Singapore, *Equipment Maintenance System*
2024 – 2025
  Tailored arc.ops maintenance module to track maintenance activities

MES - Material Traceability, *ASM Front-End Manufacturing Singapore Pte Ltd*
2024
  Implemented RFID-enabled traceability system integrated with SAP to ensure precise tracking and reduce operational errors in manufacturing workflows.

MES - System Integration, *PT. Indolakto*
2022
  Utilizing AVEVA Edge, NodeRED, PLC Modicon M221 to integrate with floor devices (PLCs, Coding Printers, Weighings)

Side Projects, *Next.JS, Cloudflare Services*
  Develop multiple side projects leveraging cloudflare services such as Worker, Pages, D1 Database, R2 Durable Object, KV.

Education

Institut Teknologi Sepuluh Nopember, *Applied Bachelor of Engineering* ⧉
2018 – 2022
Surabaya, Indonesia
  • Majoring in Automation Engineering Technology.
  • GPA : 3.51 of 4.00.
  • Final Project Field : IoT & AI

Awards

Silver Medal in Japan Design, Idea, & Innovation Expo,
20 Aug 2021
WIIPA (World Invention Intellectual Property Associations)

Bronze Medal in Kontes Robot Sepak Bola Humanoid KRI, *Pusat Prestasi Nasional*
2020

12 Awards in FIRA Roboworldcup,
2019
FIRA (Federation of International Robot-Sport Association) ⧉

Certificates

AWS Certified Cloud Practitioner - 2023 ⧉ — *Amazon Web Service*

Google IT Automation with Python - 2022 ⧉ — *Issued by Google*

Publications

Fault Prognosis System on Face-Mask Body Machine with Adabelief-Backpropagation Neural Network, *Politeknik Negeri Malang* ⧉
2023

Carbon Monoxide and Methane Gas Identification System, *IEEE* ⧉
2020