M Zulfikar Isnaen

SOFTWARE ENGINEER · MES (MANUFACTURING EXECUTION SYSTEM) ENGINEER

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Education

Bandung Polytechnic for Manufacturing (Polman)   *Bandung, Indonesia*

ASSOCIATE'S DEGREE IN MECHATRONICS ENGINEERING 3,60 OF 4,00   *2017 - 2020*

- Final project for "Implementation Navigation System using ROS (Robot Operating System) for Autonomous Mobile Robot (AMR)"
- Other project "Implementation interpolation CNC 2.5D using Algorithm Digital Differential Analyzer (DDA)"

Vocational High School - SMKN 1 Cimahi   *Cimahi, Indonesia*

ASSOCIATE'S OF INDUSTRIAL ELECTRONICS   *2013 - 2017*

- Final project for "How to Work of System Air Conditioner Type MSF09CRN"

Tools

Core Languages	Typescript, C#
Environment	Nodejs, .NET
Web Framework	Nestjs, Vue, Vite
Databases	Microsoft SQL Server, PostgreSQL
Infrastructure Tool	Docker, Kubernetes, Helm, Terraform, Terragrunt, Github Action, Lens, Google Cloud Platform
Messaging System and Caching	NATS, Redis
Robotics	C++, Robot Operating System
Low Code Development	Mendix Siemens
Enterprise Industrial	Manufacturing Execution System, Opcenter Core Siemens Software

Work Experience

Opex Consulting Group   *Indonesia - Singapore - Malaysia*

SOFTWARE ENGINEER | MES (MANUFACTURING EXECUTION SYSTEM) ENGINEER   *Apr. 2021 - Present*

- Implement and Deliver Solution for Digital Transformation in Manufacturing 4.0
- Configured System Administration of Windows Server 2019
- Integration of Enterprise Software
- Administration of SQL Database Server
- Setup Observability Tools
- Opcenter Siemens Execution Core / Electronics (Modelling Bussiness Process of Physical, Process, Execution) MES
- Opcenter Siemens Execution Core / Electronics (Configuring Bussiness Logic in Designer, and manage Portal Studio) MES
- Design and Create Custom Application for Manufacturing Process using (.NET and Mendix Siemens)
- Manage Google Cloud Platform
- Knowledge gained: Software Enterprise, Process Control, Aquisition Data, Production Management, Quality, Material Management, Maintenance Management, Data Integration
- Tech Stack: C#, Google Cloud Platform, Opcenter MES Siemens software, Desktop Application .NET, Siemens Mendix, System Administration Windows Server 2019, NLB (Network Load Balancer), IIS 8, Redis, Windows Service .NET, ASP.NET, Prometheus, AlertManager, Grafana, Grafana Loki, Promtail

Vechr Community
Indonesia

FULL STACK ENGINEER
Jan. 2022 - Jan 2023

- Developing an application IIoT refer to ISA-95
- Developing an Event driven Application Monitoring Machine using Nest/Typescript and Vue/Typescript
- Create Realtime Historian data machine using Web Socket
- Create Audit History app
- Create Drag & Drop Chart (Widget) for Dashboard, and connect with Web socket to achieve Realtime Chart System
- Manage Database Postgresql and Time Series Database (InfluxDB)
- Create Deployment Kubernetes using Helm Chart
- Sending Alert to SMTP
- Knowledge gained: Event Driven Architecture, Microservices Pattern, Usage of Message Broker (NATS, MQTT), Container Orchestration, Manufacturing System, Design Authentication and Authorization, Restfull Pagination
- Tech Stack: Kubernetes & Helm Chart, Terraform, Terragrunt, GCP, Docker, NATS (Messaging System and Caching), MQTT, GIT Hooks, NGINX API Gateway, Node Mailer, Nest, Prisma ORM, State Management(pinia), Vue/Typescript, Husky, Commitizen, linter

ThreeSixty
Remote

SOFTWARE DEVELOPER (FREELANCE)
Feb. 2022 - Jul. 2022

- Created Frontend Application.
- Doing Integration with Backend Rest API.
- Collaborative using Agile (JIRA).
- Knowledge gained: Vuejs/Typescript, Docker, JWT auth, Stripe

Synergy Engineering
BSD Tangerang, Indonesia

FULL-STACK DEVELOPER
Jan. 2021 - Apr. 2021

- Developing Application SBS (Synergy Bussines Suite) to create Front End and Backend using Ruby On Rails Framework.
- Collaborate team with Kanban Methodologies using Trello.
- Create API backend Rails with Postgresql.
- Create Drawing tagging for Engineering Drawing.
- Version Control System using Git and Gitlab.
- Knowledge gained: Database Design, Authentication & Authorization, GIT FLOW
- Tech Stack: ruby, rails MVC, Javascript, HTML (.erb)/ Slim, SASS, NPM, GITLAB, Leafletjs, Cancancan, Devise, Dropzonejs, Bootstrap 4.

L'Oréal (PT Yasulor Indonesia)
North Cikarang, West Java, Indonesia

SOFTWARE DEVELOPMENT ENGINEER
Sept. 2019 - Jan. 2020

- Doing Software Development "Inspection Check application using ASP.NET and VB.NET".
- Doing Maintenance & Preventive on Filling Machine.
- Doing Maintenance & Preventive Process Machine SKID.
- Knowledge Gained: VB.net, ASP.net, Desktop Application, Maintenance system.

PT Datareka Integrasia Teknologi
Cimahi, West Java, Indonesia

FREELANCER
March. 2017 - July. 2017

- Troubleshooting Board PCB of Security Panel
- Assembly Board PCB Controller and Power Supply using SMD Component

Midea Electronics Indonesia
North Jakarta, Indonesia

FIELD SERVICE ENGINEER
Jun. 2016 - August. 2016

- Maintenance and repair Air Conditioner.

Honors & Awards

DOMESTIC

2020	**1th Place**, BEST GRADUATION OF POLMAN	*Bandung,Indonesia*
2019	**1th Place**, BEST ACADEMIC OF POLMAN	*Bandung,Indonesia*
2019	**4th Place**, ROBOT ABU INDONESIA (KRAI)	*Bandung,Indonesia*
2018	**1th Place**, BEST ACADEMIC OF POLMAN	*Bandung,Indonesia*
2016	**4th Place**, MOBILE ROBOTICS NATIONAL 4th	*Malang,Indonesia*
2016	**1th Place**, MOBILE ROBOTICS WEST JAVA	*WestJava,Indonesia*

Certificates

2022	**Certified Practical DevOps Engineer**, Studi DevSecOps
2022	**Docker & Kubernetes: The Practical Guide**, Udemy
2022	**The Nest JS Bootcamp - Complete Developer Guide**, Udemy
2021	**Rapid - Mendix Developer Certification**, Mendix
2021	**React Js Web Frontend**, SanberCode

Projects

Freyabadi	**Pseudo Manufacturing Execution System**, Jan, 2024 - Present	*Karawang,Indonesia*
PCI	**Manufacturing Execution System**, November, 2022 - August, 2023	*Batam,Indonesia*
WIK	**Manufacturing Execution System**, October, 2021 - December, 2022	*Batam,Indonesia*
Vechr	**Vehcr IIoT Web App (Open Source)**, January, 2022 - Sep, 2022	*Indonesia*
ThreeSixty	**paymeforms.com**, February, 2022 - July, 2022	*Remote*
Opex	**Ivermectin Bank App Hybrid Mobile Apps**, June, 2021 - July,2021	*Remote*
Opex	**Enterprise Dashboard Web Application**, May, 2021 - June, 2021	*Remote*
Synergy	**Synergy Bussines Suite Web Application**, January, 2021 - April, 2021	*Bandung,Indonesia*
Polman	**Autonomous Mobile Robot Interface HMI WEB**, August, 2020 - September, 2020	*Bandung,Indonesia*
Polman	**CNC Servo Controller with Digital Differential Analyzer Interpolator**, June, 2020 - August, 2020	*Bandung,Indonesia*
Polman	**Prototype Autonomous Mobile Robot**, June, 2020 - August, 2020	*Bandung,Indonesia*
Loreal	**Inspection and Breakdown Check Web App**, November, 2020 - December, 2020	*Bandung,Indonesia*
Loreal	**Inspection Check Desktop App**, October, 2020 - November, 2020	*Bandung,Indonesia*

Extracurricular Activity

Industrial Electronics Robotics
Cimahi, Indonesia

PROGRAMMER AND PLANNER
2015 - 2017

- Gained expertise in festo didatic programming robotino.
- Applied Principles of Mobile Robotics.
- Create strategy for challanges in competition.
- Got 1th place winner of Mobile Robotics in West Java, Indonesia
- Got 4th place winner of Mobile Robotics National in East Java Malang, Indonesia

Robotic Engineering Society of Polman
Bandung, Indonesia

ELECTRICAL AND PROGRAMMERS
2018 - 2019

- Designing architecture of robotic system
- Programming Embedded System using C++
- Implementation C++ in PID Control
- Creating Schematic PCB for Motor Driver, Driver for Peneumatic System
- Got 4th place winner of Kontes Robot Abu Indonesia in West Java, Bandung, Indonesia

Program Committees

2017	**Publication and Documentation**, NATIONAL CAD CAM COMPETITION AND SEMINAR	*Bandung,Indonesia*
2019	**Division of Social community**, Himpunan Mahasiwa Teknik Otomasi Manufaktur dan Mekatronika	*Bandung,Indonesia*