



# M Zulfikar Isnaen

SOFTWARE DEVELOPER · MECHATRONICS ENGINEER · SOLUTION ENGINEER (MANUFACTURING EXECUTION SYSTEM)

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## Summary

Experience in Software Enterprise (Manufacturing Execution System) from Siemens and Software Development +2 Years specializing in the fullstack development as a Web Developer, software enterprise in Manufacturing refer to ISA-95 and UNS Model and I manage infrastructure (Linux or Windows) Environment On Premises or Cloud event k8s as well. My passion is creating innovation to solve problems and helping people to reach their purpose, and learning new technologies and tools if the need arises.

I have strong Engineering professional with a Diploma 3 focused in Mechatronics, Robotics, Automation Engineering from Politeknik Manufaktur Negeri Bandung (PMS-ITB)

## Skills

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

## Work Experience

### Vechr Community

Indonesia

#### FULL STACK ENGINEER

Jan. 2022 - Present

- 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

### Opex Consulting Group

Indonesia - Singapore (hybrid)

#### SOLUTIONS ENGINEER

Apr. 2021 - Present

- Developing an Application using Mendix Platform.
- Collaborate team using agile methodologies in Mendix Platform.
- Installing and Configuring MES (Manufacturing Execution System) Siemens Opcenter Core architecture, SMTP, Windows Server 2019, SQL Setup, Windows Failover, Microsoft NLB (Including SSL), SQL Server Always On, IIS 8
- Developing a Windows Service for Integration MES Siemens to another system like an ERP System and Machine/Scada Level using .NET Framework (v4.7.2, C#)
- Manage Database SQL Server.
- Created Modelling MES Siemens based on Business Requirement. for Traceability, Process Control, Acquisition Data, Production Management, Quality, Material Management.
- Design and Create Application for Manufacturing Process.
- Knowledge gained: Software Enterprise, Process Control, Acquisition Data, Production Management, Quality, Material Management, Maintenance Management, Data Integration
- Tech Stack: C#, MES Siemens software, Desktop Application, Mendix, Windows Server 2019, Redis, Windows Service, ASP.NET

## ThreeSixty

SOFTWARE DEVELOPER (FREELANCE)

Remote

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

FULL-STACK DEVELOPER

BSD Tangerang, Indonesia

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)

SOFTWARE DEVELOPMENT ENGINEER

North Cikarang, West Java,  
Indonesia

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 Integrasi Teknologi

FREELANCER

Cimahi, West Java, Indonesia

March. 2017 - July. 2017

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

## Midea Electronics Indonesia

FIELD SERVICE ENGINEER

North Jakarta, Indonesia

Jun. 2016 - August. 2016

- Maintenance and repair Air Conditioner.

## Achievement

2020	<b>BEST GRADUATION OF POLMAN</b> , Politeknik Manufaktur Bandung	Bandung, Indonesia
2019	<b>BEST ACADEMIC OF POLMAN</b> , Politeknik Manufaktur Bandung	Bandung, Indonesia
2019	<b>ROBOT ABU INDONESIA (KRAI) 4th</b> , Ristekdikti (Kontes Robot Abu Indonesia)	Bandung, Indonesia
2018	<b>BEST ACADEMIC OF POLMAN</b> , Politeknik Manufaktur Bandung	Bandung, Indonesia
2016	<b>MOBILE ROBOTICS NATIONAL 4th</b> , Kemendikbud	Malang, Indonesia
2016	<b>MOBILE ROBOTICS WEST JAVA 1th</b> , Dinas Pendidikan Jawa Barat	West Java, Indonesia

## Education

### POLMAN (Politeknik Manufaktur Negeri Bandung)

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)"

### SMKN 1 Cimahi

Cimahi, Indonesia

ASSOCIATE'S OF INDUSTRIAL ELECTRONICS

2013 - 2017

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

## Organization

### Robotic Engineering Society of Polman

Bandung, Indonesia

ELECTRICAL AND PROGRAMMERS

2018-2019

- Designing architecture of robotic system
- Programming Embedded System
- Creating Schematic PCB for Motor Driver, Driver for Pneumatic System
- Event: Kontes Robot Abu Indonesia

## Himpunan Mahasiswa Teknik Otomasi Manufaktur dan Mekatronika (HIMAMO)

KEMASYARAKATAN

- Survey in Lembang Village to implements Solar Panel System

*Bandung, Indonesia*

2017-2020

## Robotika SMKN 1 Cimahi

ELECTRICAL AND PROGRAMMERS

- Programming of FESTO Robot Didatic (Robotino)
- Event: Mobile Robotic tingkat Jawa Barat, Mobile Robotic tingkat Nasional

*Cimahi, Indonesia*

2016-2017