



# M Zulfikar Isnaen

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

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## 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"

## 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

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 Business 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 Integrasi 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.

## Extracurricular Activity

### Industrial Electronics Robotics

Cimahi, Indonesia

#### PROGRAMMER AND PLANNER

2015 - 2017

- Gained expertise in festo didactic programming robotino.
- Applied Principles of Mobile Robotics.
- Create strategy for challenges in competition.
- Got 1st 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 Pneumatic System
- Got 4th place winner of Kontes Robot Abu Indonesia in West Java, Bandung, Indonesia

## Honors & Awards

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### DOMESTIC

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

## Certificates

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2022	<b>Docker &amp; Kubernetes: The Practical Guide</b> , Udemy
2022	<b>The Nest JS Bootcamp - Complete Developer Guide</b> , Udemy
2021	<b>Rapid - Mendix Developer Certification</b> , Mendix
2021	<b>React Js Web Frontend</b> , SanberCode

## Program Committees

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