M Zulfikar **Isnaen**

Software Developer · Mechatronics Enginner · Solution Engineer (Manufacturing Execution System)

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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"

Skills

Core Languages	Typescript, C#, Ruby
Environment	Nodejs, .NET
Web Framework	Nestjs, Reactjs, Vue, Vite, Ruby On Rails
Databases	Microsoft SQL Server, PostgreSQL
Infrastructure Tool	Docker, Kubernetes, Helm, Terraform, Terragrunt, Github Action, Lens
Messaging System and Caching	NATS, Redis
Robotics	C++, Robot Operating System
Low Code Development	Mendix
Enterprise Industrial	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 Bussines Requirement. for Tracebility, Process Control, Aquisition Data, Production Management, Quality, Material Management.
- Design and Create Application for Manufacturing Process.
- Knowledge gained: Software Enterprise, Process Control, Aquisition 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 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	**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

Opex	**PCI - Manufacturing Execution System**, November, 2022 - Present	*Batam,Indonesia*
Vechr	**Vehcr IIoT Web App (Open Source)**, January, 2022 - Present	*Indonesia*
Opex	**WIK - Manufacturing Execution System**, October, 2021 - December, 2022	*Batam,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*
Polman	**Inspection and Breakdown Check Web App**, November, 2020 - December, 2020	*Bandung,Indonesia*
Polman	**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*