Muhammad Farishanif Widyono, Software Engineer

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Bekasi, Indonesia

Summary

Backend-focused and result-driven software developer with more or less two years of experience in TypeScript and Javascript Frameworks. Proficient in multiple programming languages including Java, Python, and Javascript, with a strong foundation in algorithm, data structure, and software design principles. Experienced in web development, ML Engineering and IoT Engineering, with a foundational understanding of CI/CD practices, and clean code principles. Adept at collaborating in agile teams, troubleshooting complex issues, and delivering high-quality, user-centric solutions. Committed to continuing learning and staying updated with emerging technologies.

Experience

Freelance - Fullstack Developer

June 2024 – Feb 2025 | Bekasi City, Indonesia

Contributed to two distinct projects, demonstrating versatility and quick adaptation on using third party implementation:

1. **TOP-UP STORE**

- Working on the projects in JavaScript programming language with Next.js frameworks with MongoDB database.

- Creating a fluid and dynamic appearance for the website using TailwindCSS and AOS.

- Implemented top up features and its management page and program.

- Connecting four third party API such as Clerk, Tripay, Digiflazz, and top up broker.

2. **Social Media Landing Page**

- Working on the projects in TypeScript programming language with the newest Next.js fullstack frameworks with MySQL database and PrismaORM for its scheme.

- Creating a scalable and flexible social media landing page that supports various improvements.

- Utilizing third-party such as Clerk for automation user account management and also using Webhook for its event-driven communication.

Technical Skills:

JavaScript, TypeScript, Next.js, Webhooks, PrismaORM, Vite, Tailwind CSS, GitHub, Postman, Clerk, mySQL.

Fullstack Developer – PT. Sofco Graha.

July 2023 – Oct 2023 | Center Jakarta, Indonesia

I worked as a one "Tailor Made" Division Software Engineer team on creating and updating a company ERP Website template based on client request. Working with Agile methodology utilizing Kanban. My contributions included:

- Translating from Figma into functional code using JavaScript, and React JS.

- Working on the projects in Javascript programming language with Primefaces and Angular front-end frameworks, and Express.Js back-end frameworks with MongoDB database.

- Collaborated with team members to troubleshoot and resolve React coding issues.

- Create and modify the front-end and back-end menu for improving user experience and performances.

- Responsible for improving some features, which are warehouse management programs and the company's fund allocation features.

- Debugged software, identified root causes, and proposed solutions to software issues.

Technical Skills:

Express.js, Javascript, Primefaces, Angular, MongoDB, Kanban, ERP, Postman.

Backend Engineer Intern – PT. DDB Telekomunikasi Indonesia

Sep 2021 – Feb 2022 | East Jakarta, Indonesia

During my internship at DDB Telkom, I was actively involved as a Backend Engineer. Working with Agile methodology utilizing JIRA in the development of a two Courses Website that are interconnected. My contributions were:

- Creating and modify at least 24 back-end menus and API for improving user experience and performances.

- Working on two website project where each used Hapi and Restify Framework with PostgreSQL and MongoDB Databases

- Managing the PostgreSQL and MongoDB database, including the creation and maintenance of collections for different project phases.

- Responsible for some features, namely scheduling accessibility and course expiration with Cron, improving web performance by implementing a queue system with RabbitMQ, optimizing caching performance with Redis, etc.

- Debugged software, identified root causes, and proposed solutions to software issues. While also creating unit testing with Mocha.

Technical Skills:

JavaScipt, TypeScript, NodeJS, MongoDB, Hapi, Restify, PostgreSQL, Mocha, Postman.

Education

Diploma 4 / Sarjana Terapan (Bachelor of Applied Science)
Politeknik Negeri Jakarta / State Polytechnic of Jakarta
Graduated: July 2022 | Major: Computer and Informatics Eng. | GPA: 3.66
Relevant Coursework: IoT Technologies, Robotics (Python and C++), Machine Learning, Embedded Systems Programming, Network Security, Cloud Computing and Grid

Skills

- **Programming Languages:** JavaScript, TypeScript, HTML, CSS, Java, Python, C/C++, PHP, Scripting
- **Technologies:** ReactJS, NodeJS, MongoDB, PostgreSQL, MySQL, Bootstrap, Tailwind CSS, Socket.io, Docker, Git, Windows, Linux
- **DevOps**: System Development Life Cycle, Cloud Infrastructur, Containering, Orchestrator
- **IoT & Embedded Systems:** Raspberry Pi, Arduino, RFID Tech, Sensor Integration
- **AI & Machine Learning:** Fundamentals of Machine Learning, LCNN Engineer
- **Tools:** Postman, JIRA, Kanban, Figma, Jenkins, Red Hat Openshift, Gitlab, Github
- **Soft Skills:** Problem-solving, effective communication, teamwork, quick learner, adaptable, attention to detail

Cybersecurity Skills

- Network Security: Firewalls, ACLs, Intrusion Prevention Systems
- Cryptography and VPNs
- Threat Analysis and Defense Strategies
- API Understanding and Implementation
- Cisco Platforms and Development

IoT and Embedded Systems Projects

- **Smart Door Lock**
  - Developed an RFID-based smart door lock system using Arduino Uno Rev. 3
  - Implemented features including solenoid lock mechanism, piezzo buzzer for alerts, and ultrasonic sensor for proximity detection
  See GitHub: https://github.com/Farishanif/SmartDoorLock

- **Smart Classroom**
  - Created an IoT-based smart classroom system using ESP8266/NodeMCU + Arduino UNO
  - Implemented server communication and database integration
  See GitHub: https://github.com/Farishanif/SmartClassroom

Web Development Projects

- **FariStore Landing Page**
  This Website was created in JavaScript, with Next.js and Vite. Utilizing TailwindCSS, AOS library and Mongoose library to use MongoDB. This Website also utilizes various third-party.
  Technology used: JavaScript, Next.js, Vite, Clerk, TailwindCSS, Clerk, Tripay, Digiflazz.
  See GitHub : https://github.com/Farishanif/faristore

- **Socmed-Faris Landing Page**
  This Website created in TypeScript, with the newest Next.js framework. Utilizing TailwindCSS and PrismaORM. While also utilizing third party Clerk and also using Webhook.
  Technology used: Typescript, NextJS, TailwindCSS, PrismaORM, WebHook, MySQL.
  See GitHub : https://github.com/Farishanif/socmed-faris

AI Development Projects

- **LiveStream YoloV4 Detection System**
  A Python program in Raspberry Pi equipped with a camera to continuously send a live video stream with Socket.io and able to mark rice disease with the help of a trained CNN YOLOv4 that has been encrypted with Fernet cryptography. Also a Flask website that is also able to decrypt and show the live video stream and store the detected frame into PostgreSQL.
  Technology used: Python, Flask, Socket.io, OpenCV, CNN, Raspberry Pi, Fernet Crypthograph, Multi-Threading.
  See GitHub : https://github.com/Farishanif/Livestream-YoloV4-DetectionSystem

- **RiceField Detection Drone System**

  A Python program in Raspberry Pi equipped with sensors and a camera to track GPS live location and continuously get a live stream feed that is able to detect a rice field or bare land by utilizing Socket.io and my own trained LCNN. Also an Android application that is able to receive the live stream feed and able to process GPS live location and show it on Google Maps API.

  Technology used: Python, Java, LCNN, VLC, Socket.io, OpenCV, Raspberry Pi, Android.

  See GitHub : https://github.com/Farishanif/RiceFieldDetection-DroneSystem

Certifications and Training

- FreeCodeCamp – Fullstack Developer Course
  - Completed 2000 course of training covering HTML, CSS, JavaScript, FrontEnd Libraries, Relational Databases, Python, Backend JavaAcript
- DevSecOps Associate Training, Cisco NetAcad — August - December 2021
  - Completed 580 hours of intensive training covering:
    - Introduction to CyberSecurity
    - CyberSecurity Essentials
    - Network Security
    - CyberOps Associate
    - DevNet Associate

Publication

- Low-cost Surveillance System using Smartphone and Raspberry Pi4 Based on Real Time Streaming Protocol
  - https://ieeexplore.ieee.org/abstract/document/9970093
- Sistem Pengenalan Benih Padi menggunakan Metode Light Convolutional Neural Network pada Raspberry PI 4 B
  - https://jurnal.nurulfikri.ac.id/index.php/jtt/article/view/443
- RANCANG BANGUN LIVESTREAM VIDEO MENGGUNAKAN WEBSOCKET DAN 4G PADA RASPBERRY PI 4
  - https://repository.pnj.ac.id/id/eprint/6846/
- Design of Livestream Video System and Classification of Rice Disease
  - https://www.joiv.org/index.php/joiv/article/view/1336

Languages

- Indonesian (Native)

- English (Proficient)