Muhammad Fakhri Putra Supriyadi

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Profile Summary

As a Senior Software Engineer with 7+ years of industry experience. I specialize in algorithm development, system security, embedded systems, and possess a deep understanding of low-level intricacies. Rooted in Electrical Engineering, I bring a comprehensive skill set that combines technical depth with broad expertise, enabling me to deliver innovative solutions in software development and engineering.

Education

Telkom University   Bandung, Indonesia
B.Eng. in Electrical Engineering   08/2017 - 02/2022

- Developed an android application to automatically calculate Respiration & Heart rate using signal processing algorithm for final project [P2]

Work Experience

Senior Software Engineer
@ Pi-xcels | Remote, Singapore   06/2022 - Present

- Developed an ESC/POS file parser, renderer, and analyzer from scratch, enabling seamless integration of point-of-sale data
- Initiated the development and optimized CI/CD with GitHub Actions, achieving ~80% efficiency boost
- Transformed frontend from React JS to Vue JS, boosting performance by at least 2x, enhancing maintainability, and transitioned to a monorepo with Nx Monorepo
- Containerized the system and developed an internal container management tool using Docker
- Followed a TDD approach by implementing e2e and unit tests using Cypress and Jest
- Techstack: **Typescript, Github Actions, Vue JS, Nx Monorepo, Docker, GraphQL, PostgreSQL, Nest JS**

Backend Developer
@ Venturemind Labs | Remote, Indonesia   03/2022 - 06/2022

- Fixed bugs, optimized, and contributed to movies subtitle editing backend
- Developed an algorithm to check and autofix a given movie subtitle sentence based on a given rule
- Implemented pipeline to add watermark to a video using ImageMagick and Bash
- Techstack: **ImageMagick, Bash, Python, Django, PostgreSQL, Celery, Flower, OpenAPI, Swagger**

Software Developer
@ Daskom Laboratory in Telkom University | Bandung, Indonesia   08/2019 - 07/2020

- Pioneered the development of the initial open-source laboratory and practicum website [P6]
- Led the data migration from old local closed-source system to the new open-source public one
- Mentored and taught ~50+ other laboratory assistant about software engineering related knowledge, covering version control system, fullstack development, system automation, and more
- Techstack: **Vue JS, Laravel PHP, MySQL**

Software Developer Intern
@ PT. Sagara Asia Teknologi | Bandung, Indonesia   06/2020 - 07/2020

- Created automation in Python using Wordpress API to upload post extracted from .csv file
- Contributed to the fullstack development for an interior architectural company website
- Techstack: **Quasar JS, Laravel PHP, Python, Wordpress API, PostgreSQL**

Software Developer Intern
@ PT. Telkom Karawang | Karawang, Indonesia   06/2019 - 07/2019

- Developed a dashboard provisioning system and realtime location based Indihome usage tracker website, improving process efficiency by ~3x for marketing and engineering team
- Techstack: **Native PHP, MySQL, Javascript**

Junior Android Developer Intern

@ PT. Aegis Ultima Teknologi | Bandung, Indonesia   06/2016 - 09/2016

○ Created an Android application using Google Maps API and Activity Recognition API
○ Connected the Android application to Firebase for database related feature
○ Techstack: **Java, Android, Firebase, Google Maps API, Activity Recognition API**

Selected Projects

P1 **D1337Lands** (2022) [⑂ d1337lands]

Fullstack Web Application | Realtime RPG | Discord Bot | Community Project

○ Created a community website that uses Next JS for fullstack development and Xterm JS to emulate a terminal
○ Created a realtime web based role-playing game using Phaser 3 and websocket
○ Created a discord bot to maintain the community and also serves as login mechanism for the RPG
○ Techstack: **Python, Next JS, Xterm JS, Phaser3, Websocket, Discord API**

P2 **AutoRR** (2021) [▶ Undergraduate final project timelapse • ⑂ autorr-android]

Android Application | Signal Processing | Bachelor Thesis

○ Created an android application to automatically calculate Respiration & Heart rate of a person using Kotlin
○ Developed a signal processing algorithm to calculate the Respiration & Heart rate from accelerometer and gyroscope sensor data in a mobile phone using Octave, and ported it to Javascript
○ Techstack: **Octave, Javascript, Android, Rhino, Kotlin**

P3 **Anantara Project** (2021) [▶ B21-CAP0236 Capstone Project Presentation • ⑂ B21-CAP0236]

Embedded System | Machine Learning | Cloud Computing | Bangkit 2021 Event

○ Led a team of 5 members to create a vending machine system
○ Implemented the hardware related system using Raspberry Pi and PyQt5 for the interface and connected the system to GCP for cloud services and Hasura Cloud for backend
○ Techstack: **Python, Raspberry Pi, PyQt5, GCP, Hasura**

P5 **Weekend Crash Course** (2020) [▶ @daskom1337 • ⑂ weekend-crash-course]

Volunteer | Community Project

○ Crafted software engineering related crash courses and guided other mentors for the course creation
○ Taught the courses in the discord community and uploaded all the recorded crash courses to youtube

P6 **Daskom Website** (2020) [⊕ https://daskomlab.com/ • ⑂ daskomweb]

Realtime Fullstack Web Application | Laboratory Project

○ Created a realtime web application to be used throughout the laboratory practicum process using Websocket for realtime communication, Laravel for the backend and Vue JS for the frontend
○ Mentored and guided new developers for how to collaborate and contribute to the codebase
○ Techstack: **Vue JS, Laravel PHP, Tailwind CSS, MySQL, Inertia JS**

Awards and Honors

Finalist, Cyber Jawara CTF Indonesia   2021
Finalist, HackToday 2021 CTF Indonesia   2021
Finalist, Compfest13 CTF Indonesia   2021
2nd Winner, KKS TNI CTF Indonesia (College category)   2021

Skills

Programming Languages: Python, JS/TS, Kotlin, Java, C, C++, Golang, PHP, Bash, SQL

Hacking: Web Penetration Testing, Forensic Analysis (network, image, video, memory, pdf, etc)

Tools and Technology: Git, Linux, Vue, React, Quasar, Laravel, Next JS, Nuxt JS, Django, BeautifulSoup, FPGA, Firebase, PostgreSQL, NoSQL, GraphQL, Hasura, Nest JS, Tailwind CSS, Docker, Github Actions CI/CD, Embedded System, Android, Flutter, GCP, AWS, LaTeX, Nx Monorepo, Cypress, Jest, BurpSuite, Wireshark, Volatility, Octave

Languages: Bahasa Indonesia (native), English (proficient)