

Muhammad Afifudin

Full-Stack Software Engineer, Frontend Expert

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About

Senior Software Engineer with **8+ years of experience** and a proven track record in frontend engineering and full-stack product development. Product-oriented engineer who enjoys collaborating across engineering, product, and design to build software that creates value for users and businesses.

Experiences

Full-Stack Software Engineer (Contract, Remote)
Resal (SaaS company - loyalty & rewards)

Jan 2025 – Aug 2026
Jeddah, Saudi Arabia

- Led wallet-pass migration from legacy app to new app, and designed robust logic to migrate wallet-pass notif.
- Delivered significant improvements to the campaign system by enhancing delivery visibility, correcting business logic, and handling complex edge cases, resulting in a more reliable platform. ([Read the full story on my blog](#)).
- Strengthened application security through multiple initiatives, including protection against account enumeration, bot attacks, XSS vulnerabilities, and replacing sequential public identifiers with secure random IDs.
- Designed efficient and scalable database schemas to support new features and long-term system growth.
- Improved application performance across the stack by eliminating unnecessary database queries, reducing redundant network requests, and optimizing frontend bundle size.
- Increased engineering efficiency through CI improvements, enhanced testing, and better developer tooling.
- Actively participated in product feature planning and technical discussions by working closely with cross-functional teams, while providing constructive feedback to improve both the product and engineering practices.

Technologies: TypeScript, React, Next.js, Python, FastAPI, PostgreSQL, GraphQL, Redis, Docker, Express.js

Senior Frontend Engineer (Full-time, Remote)
eFishery (tech company - aquaculture)

Oct 2022 – Dec 2024
Bandung, Indonesia

- Enhanced the eFishery apps by optimizing the JavaScript bundle size, cutting unnecessary network requests, implementing efficient caching strategies, & improving error monitoring.
- Led technical discussions between front-end and back-end teams, driving the identification of optimal API structures and system designs to enhance scalability and maintainability.
- Demonstrated commitment to team success by actively sharing fundamental knowledge and best practices related to JavaScript, TypeScript, React.js, Next.js, and other frontend engineering stuff.
- Enhanced team productivity by providing mentorship and guidance on the proper utilization of libraries, enabling colleagues to streamline their workflow and achieve optimal results.
- Actively provide feedback to my manager and team, contributing to the development of a more efficient system and promoting collaboration within the team.

Technologies: JavaScript, TypeScript, React, Next.js, GraphQL, Ant Design, TWA, React Native

Senior Frontend Engineer & Tech Lead (Full-time, Remote)
HappyFresh (tech company - e-commerce)

Mar 2022 – Oct 2022
Jakarta, Indonesia

- Led a cross-functional payment and post-checkout engineering team of 7 engineers.
- Partnered closely with product managers, designers, QA, backend engineers, and data analysts to define project requirements, set timelines, and prioritize tasks for feature development and deployment.
- Built and enhanced core e-commerce features across web and mobile platforms, including checkout, payment processing, order tracking, and withdrawals.
- Engineered a withdrawal feature, resulting in a notable 60% reduction in refund complaints.
- Mentored colleagues, shared knowledge through tech talks, and wrote technical documentation.

Senior Software Engineer Web Platform (Full-time, Remote)
Tokopedia (tech company - marketplace)

Nov 2021 – Feb 2022
Jakarta, Indonesia

- Developed customer-facing web applications serving approximately 135 million monthly visitors, including Feed, Tokopedia Play (live-streaming platform), and Tokopedia Academy (blog platform).
- Developed internal content management tools that streamlined operational workflows for internal teams.
- Contributed to software quality by performing code reviews, writing unit and integration tests, and resolving production issues.

Frontend Engineer & Team Lead (Full-time, Remote)
Takalab (software house)

Jul 2020 – Oct 2021
Jakarta, Indonesia

- Developed a healthcare e-commerce platform used by thousands of users across web and mobile.
- Developed a hiring platform enabling recruiters and job seekers to connect through an intuitive web app.
- Led the frontend engineering team by managing and mentoring 5 engineers, coordinating project requirements, estimating timelines, and driving successful feature delivery.
- Established the frontend foundation by developing reusable Next.js and React Native boilerplates, along with a shared frontend core library adopted across multiple projects.

Statistician & Fullstack Web Developer (Full-time, On-site)

Badan Pusat Statistik (government, statistics bureau)

- Worked as a Statistician and Full-Stack Web Developer, building internal software solutions while supporting statistical operations.
- Developed a task management web application that significantly improved the team's productivity.
- Redesigned and redeveloped 4 internal web apps, improving user experience and usability.
- Supported statistical projects through survey planning, data validation, analysis, and publication.

Jan 2017 – Jul 2020

Kalimantan Barat, Indonesia

Education

Bachelor of Applied Science in Statistical Computing

Sekolah Tinggi Ilmu Statistik (*Government College of Statistics*)

Oct 2012 – Oct 2016

Jakarta, Indonesia

Skills

Languages

: JavaScript, TypeScript, Python, PHP, SQL

Frontend

: HTML, CSS, React, Next.js, Svelte, Astro, React Native, Ant Design, Tailwind, TanStack Query, Vitest, CSS Animation, Responsive Design, SEO, Accessibility, Data Visualization

Backend

: Node.js, Bun, Express.js, FastAPI, PostgreSQL, REST API, GraphQL, Database Design

Others

: Git, CI/CD, Testing, Application Security

Projects

The featured projects below are publicly accessible, showcasing my interests in software engineering. Many of my most impactful projects were developed professionally and cannot be shared due to confidentiality.

Web Apps:

- Pokémon Website**
A modern Pokémon web experience showcasing how thoughtful UX, polished animations, and performance optimization can coexist, even on free-tier infrastructure.
- Statistiku** (Statistical Analysis Web App)
Originally built in 2019, hand-crafted before the AI-assisted development era, as a showcase of my mathematics and statistical computing background. Later transformed into a fully static web app in 2024, with heavy computations executed on the client using Web Workers to efficiently process large datasets without a backend.
- IsoSehat** (Interactive Healthcare Accessibility GIS)
Interactive geospatial analytics platform that combines travel-time isochrones and population density data to evaluate healthcare accessibility.
- Family Tree App**
A privacy-first family tree application that runs entirely in the browser—no installation, no login, no ads, with all data stored locally on the user's device.

Others:

- YuuState** (React State Management Library)
A lightweight React state management library that replaces both Zustand and TanStack Query through a unified API, while maintaining a significantly smaller bundle size. Internally explores concepts such as the observer pattern, stable cache key hashing, and Proxy-based fine-grained reactivity.
- JS/TS React/Next.js Snippets** (VSCode Extension)
12K+ installs, helping developers write code faster.

Explore more projects at: afiif.github.io

Articles & Videos

- Blog: afiif.github.io/blog
- YouTube: youtube.com/@afifu

Certifications

- HackerRank Certificate: [JavaScript & React](#)
- Sep 2022