Satrio Prio Cahyo Utomo

Software Engineer

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I am a software developer with expertise in backend development, focusing on building scalable and high-performance systems. Experienced in designing and implementing robust APIs, database optimization, and system architecture. Passionate about solving complex problems and continuously improving system efficiency.

WORK EXPERIENCE

Software Engineer   **Sep 2023 – Feb 2025**
Project: Carik Mandiri
Dinas PPAPP – Provinsi DKI Jakarta
Tech Stack: React, Golang, Spring Boot, PostgreSQL, Apache Kafka

- Contributed to the development of a digital platform that allows Jakarta citizens to independently submit and update comprehensive family data.
- Built responsive and accessible user interfaces using React, designed specifically for ease of use by Dasawisma cadres and non-technical users.
- Developed backend microservices using Golang for lightweight, high-performance services such as real-time validation, data preprocessing, and integration with external NIK/DTKS APIs.
- Created microservices using Spring Boot (Java**)** to handle core business logic including user authentication, authorization, dashboard analytics, and structured family data management.
- Implemented dynamic forms with validation rules, enabling users to input detailed information on family composition, health, education, income, and housing.
- Integrated secure user roles (admin, kader, warga) with role-based access control (RBAC) to protect sensitive demographic and socioeconomic data.
- Designed and optimized PostgreSQL schemas and queries for handling large-scale relational datasets efficiently.
- Integrated Apache Kafka to enable real-time inter-service communication and event-driven architecture, enhancing system scalability and reliability.
- Participated in deployment processes, conducted debugging and testing, and contributed to technical documentation and training efforts.
- Collaborated with government stakeholders, including TP PKK and Jakarta Provincial Government, to ensure technical features met field requirements.

Software Engineer   **Jul 2022 – Aug 2023**
Project: Coperative Management System
PT Mitra Sejahtera Digital
Company: Inovasi Digital Nusantara
Tech Stack: PostgreSQL, Laravel, Angular, Postman

- Developed and maintained a comprehensive web-based system to manage savings, loans, and member transactions for cooperative institutions.
- Built RESTful APIs using Laravel to handle core business operations including savings management, loan processing, interest calculation, and member contributions.
- Designed and managed relational database schemas in PostgreSQL, ensuring accurate financial record-keeping and efficient query performance.
- Created interactive, user-friendly interfaces using Angular, allowing admins and members to easily track balances, view transaction history, and submit loan requests.
- Implemented authentication and role-based access control to distinguish between admin, staff, and member-level privileges.

- Conducted API testing and documentation using Postman to ensure data integrity and facilitate seamless frontend-backend integration.
- Supported monthly and yearly financial report generation with features like ledger summaries, transaction filtering, and PDF export.
- Collaborated with stakeholders to gather system requirements, improve usability, and ensure compliance with local cooperative financial regulations.

Software Engineer   **Jul 2021 – Jun 2022**
Company: EduTech Nusantara
PT Solusi Edukasi Digital
Project: School Payment Tracker (Client: EduTech Nusantara)
Tech Stack: React, Express.js, PostgreSQL, JWT, Chart.js, Docker

- Developed a web-based application to help schools and administrators manage student payment records, due dates, and financial reporting.
- Built RESTful APIs using Express.js to handle student registration, invoice generation, payment tracking, and financial summaries.
- Designed a clean, user-friendly React frontend with role-based dashboards for admins, finance staff, and parents.
- Integrated JWT-based authentication to ensure secure access to payment data.
- Implemented filtering and search features for transaction history, outstanding balances, and payment verification.
- Visualized payment analytics using Chart.js to provide insight into monthly income and overdue payments.
- Containerized the application using Docker for easier deployment and environment consistency.
- Collaborated closely with users to refine workflows, ensuring the system matched real-world school administration needs.

Software Engineer   **Apr 2020 – May 2021**
Company: HRIS Tech Solutions
PT Karya Digital Mandiri
Project: Smart Attendance System
Tech Stack: React.js, Laravel (PHP), PostgreSQL, JWT, Socket.IO, Docker, Geolocation API, Face Recognition (OpenCV)

- Developed a modern web-based attendance system that allows employees to clock in/out using facial recognition and real-time geolocation validation.
- Built secure, scalable RESTful APIs in Laravel to handle attendance logging, user management, face data registration, and shift scheduling.
- Designed a responsive React.js frontend dashboard for both admins and employees, with live attendance tracking and role-based access control.
- Integrated Socket.IO to enable real-time update of user status (clock-in/out), helpful for HR monitoring multiple branches.
- Implemented JWT authentication for secure login and session handling across web and mobile platforms.
- Utilized browser-based Geolocation API to ensure clock-in/out is only possible within registered office coordinates.
- Integrated face recognition module using OpenCV, allowing users to verify attendance securely via camera.
- Containerized the entire application using Docker to support easy deployment across different environments.
- Collaborated closely with HR personnel to ensure features met organizational needs such as leave approval, late report, and monthly

STMIK JAKARTA – Undergraduate   **2021 – 2025**

Bachelor in System Informasi

CERTIFICATION

Programmer Disnakerja – Depok, Indonesia

Edspert.id – Yogyakarta, Indonesia

Create Station – Jakarta, Indonesia

SKILLS

Programming Languages:
Go, PHP, Java, JavaScript, TypeScript

Backend Frameworks:
Laravel, Spring Boot, Express.js, NestJS, Node.js

Frontend Frameworks:
React.js, Angular

Mobile Development:
Flutter

Databases:
PostgreSQL, Oracle, Firebase, SQL, NoSQL

DevOps & Tools:
Docker, Git, Postman, Apache Kafka

Authentication & Architecture:
JWT Authentication, RESTful API, Microservices Architecture, Role-Based Access Control (RBAC), Chart.js, Socket.IO, Geolocation API, OpenCV (Face Recognition)