Muhammad Ghufran

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SUMMARY

As a student of Informatics from Syiah Kuala University, I, Muhammad Ghufran, have developed a strong foundation in software development. Having completed my coursework and awaiting graduation, I now work as a Software Engineer, applying my knowledge and skills in real-world technology solutions. Throughout my academic journey and professional experience, I have continuously deepened my understanding of software engineering principles and practices. I am confident that my educational background and hands-on experience make me a valuable contributor in the technology industry.

EDUCATION

Syiah Kuala University   Expected Agustus 2025

Bachelor of Science in Computer Science (GPA: 3.56 / 4.00)   *Banda Aceh, Aceh*

- **Relevant Coursework:** Web Development, Frontend Development, Backend Development, DevOps, Mobile App Development

EXPERIENCE

Bangkit Academy   Feb 2024 – Jun 2024

Mobile Development   *Online*

- Developed expertise in mobile development using Kotlin, including hands-on projects creating dynamic and responsive Android applications.
- Worked collaboratively on a capstone project, Fintrack, creating a financial app for SMEs and integrating machine learning models for expense categorization and financial analysis, including forecasting.
- Enhanced problem-solving skills by tackling real-world mobile development challenges, optimizing app performance, and ensuring user-friendly interfaces.

PROJECTS

SIPEMA | *Public Complaint System for USK*

- Developed backend system for public complaint management using Hono framework with TypeScript.
- Designed and implemented RESTful APIs for complaint submission, tracking, and management processes.
- Built robust database architecture using PostgreSQL with Prisma ORM for efficient data modeling and querying.
- Implemented user authentication and authorization system to ensure secure access to complaint data.
- Created complaint categorization and status tracking functionality to streamline complaint processing workflow.
- Developed notification system to keep users informed about complaint status updates and responses.
- Implemented data validation and error handling mechanisms to ensure system reliability and data integrity.
- Optimized database queries and API performance for handling large volumes of complaint submissions.

SIPEDAS | *Employee Information System for Aceh Social Service Department*

- Developed web-based employee management system for Aceh Social Service Department using Express.js and Node.js.

- Built comprehensive database architecture using MongoDB with optimized query performance.
- Implemented secure authentication system with role-based access control for different user levels.
- Created approval workflow system for employee data updates with status tracking functionality.
- Integrated data validation mechanisms to ensure data integrity and prevent duplicates.

Fintrack | *Financial App for SMEs*

- Developed a customized financial management application for small and medium-sized enterprises (SMEs).
- Implemented machine learning models for expense categorization and financial analysis, including forecasting.
- Integrated these models into the Android application, enabling users to track and analyze their financial data.
- Implemented user account functionality to store and manage financial records and history.

- Added data visualization feature within the application to provide better understanding of financial trends and user spending patterns, including forecasting to assist users in planning their finances for the future.

Euran Waste Management System | *Integrated Waste Payment Project with Laravel*
- Developed an integrated waste management system called "Euran" using the Laravel framework.
- Implemented features for users to pay waste collection fees and manage their payments seamlessly within the application.
- Designed a user-friendly interface for users to register, log in, and view their payment history.
- Integrated with local payment methods or offline payment options to facilitate waste collection fee payments.
- Developed a dashboard for waste collectors to view scheduled collections, update collection status, and generate reports.
- Implemented a notification system to alert users and waste collectors of upcoming collections and payment deadlines.

- Utilized geolocation services to optimize waste collection routes and schedules for efficient operations.
- Ensured scalability and maintainability of the application by following best practices in Laravel development.

TECHNICAL SKILLS

Languages:Kotlin, JavaScript, TypeScript, PHP, HTML, CSS
Technologies: React.js, Laravel, Node.js, Express.js, MongoDB, PostgreSQL, Hono.js
Designing: I find pleasure in the process of designing, where I can combine creativity, precision, and strategic thinking to create something unique and meaningful.

ORGANIZATIONAL INVOLVEMENT

Vice Chair of Communication & Information, Informatics Student Association   2023
Syiah Kuala University   *Banda Aceh, Aceh*
- Led communication and information efforts to strengthen organization engagement and visibility.
- Planned and implemented creative strategies to enhance organization activities and events.
- Created and managed the Instagram presence for Informatics (@hmif.fmipausk), ensuring compelling and relevant content to increase interaction with members and wider audience.
- Collaborated with other departments to ensure smooth coordination and achievement of organizational goals.

Member of Research and Development Informatics Student Association   2024
Syiah Kuala University   *Banda Aceh, Aceh*
- Engaged in research and development activities, contributing to the advancement of student-led projects.
- Collaborated with fellow members to explore new ideas and technologies for innovative projects.

Member of Student Representative Council (DPM)   2024
Syiah Kuala University   *Banda Aceh, Aceh*
- Participated in student governance and representation activities within the university.
- Contributed to policy discussions and decision-making processes affecting student welfare.
- Served as a liaison between students and university administration to address student concerns.