

Abdul Mannan Saipi

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Skilled and versatile Developer with experience in web, mobile, and machine learning application development. Proficient in full-stack development, with expertise in front-end frameworks like React and Flutter, as well as back-end technologies such as Laravel, ASP.NET, and Node.js. Experienced in building and deploying apps on cloud platforms like Google Cloud Platform (GCP) ensuring optimal performance and security.

EXPERIENCE

Full Stack Developer Intern | PT Mattel Indonesia
Bekasi Regancy, Indonesia

January 2024 - present

- Spearheaded the digital transformation of manual processes, replacing paper-based and Excel-based systems with automated solutions to enhance efficiency and accuracy.
- Designed, built, and deployed over ten bespoke systems tailored to various departmental needs, utilizing ASP.NET, Power Apps, and Power Automate, C#, VB, and SQL Server, which resulted in significant improvements in workflow efficiency and employee productivity.
- Managed and maintained company data through SQL Server for database management and Power BI for data visualization and reporting. Integrated Gateway to streamline data accessibility, enabling informed decision-making and enhancing data security.

IT Programmer Intern | Sekretariat Jendral DPR RI
Central Jakarta, Indonesia

August – December 2023

- Developed a data visualization application like Tableau/Power BI using Laravel and SQL, enabling users to create custom dashboards with a variety of charts. Users can select and arrange charts according to their preferences, offering a highly adaptable and personalized experience.
- Designed an efficient data retrieval system (scheduler) using Node.js, which periodically updates a smaller dataset from the main database, ensuring faster query times for the dashboard website.
- Played a key role in designing the infrastructure for the "Improvisasi Dashboard Website Program Legislasi Nasional DPR" proposal. This included system design, architectural design, detailed design, use case diagrams, activity diagrams, and entity relationship diagrams, with a focus on improving the efficiency and accountability of the DPR website using the RUU dataset.

EDUCATION

President University
BCs in Informatics (Current GPA: 3.88)

Cikarang, West Java
Sep 2021 – Dec 2024 (Expected)

- Related Courses: Server-Side Internet Programming, Coding and Big Data, Database System, Data Structures and Algorithms, Object Oriented and Visual Programming, Web Programming, Wireless and Mobile Programming
- Capstone Project: Developed *Audio Vision*, a machine learning-based mobile application designed to assist visually impaired users by detecting surrounding objects and navigating them to specified locations. Utilized computer vision and object detection algorithms to enable real-time feedback, enhancing user independence and accessibility.

Bangkit Academy 2023 led by Google, Tokopedia, Gojek & Traveloka
Central Jakarta, Indonesia

Indonesia (Remote)
February – July 2023

- Successfully built a cloud-based mobile application that leverages GCP for deployment, ensuring scalability and reliability. Led the back-end development using Node.js, implementing robust server-side logic and APIs to support app functionality and optimize performance.
- Developed in-depth knowledge of Google Cloud Platform (GCP) and demonstrated proficiency in deploying and managing cloud-based applications with scalability, reliability, and security
- Achieved 7 certifications from Google Coursera and Dicoding Indonesia including Google Cloud Skill Boost, System Administration and IT Infrastructure Services, The Bits and Bytes of Computer Networking, Become a Google Cloud Engineer, Build Back-End Applications with Google Cloud, Web Development, JavaScript Programming

PROJECTS

AudioVision: Real-Time Object Detection Mobile App [see project](#)

- Led the full development cycle, including planning, design, model training, coding, testing, and deployment.
- Implemented machine learning algorithms using YOLOv8 and TensorFlow Lite for real-time object detection.
- Integrated Google Maps API, Directions API, and Places API from Google Cloud Platform (GCP) for advanced route guidance and location services.
- Developed an auditory guidance system providing clear and effective navigation instructions, enabling users to reach their destinations successfully
- Implemented real-time location sharing and tracking features using Firebase, ensuring precise and reliable location information for users and their contacts.
- Implemented voice commands feature for hands-free operation, enhancing accessibility and ease of use.

Technology: Flutter, Dart, YOLOv8, TensorFlow Lite, Google Maps API, Google Directions API, Google Places API, Speech-to-Text, Text-to-Speech, Firebase Realtime Database, Firebase Authentication, Express.js, Node.js

Serfee API [see project](#)

- Developed RESTful APIs to enable seamless communication between the mobile app and the cloud services
 - Implemented user authentication, authorization, ticket submission, image upload, profile management, user feedback, and chat features.
 - Employed the MVC (Model-View-Controller) design pattern to achieve a well-defined division of responsibilities and a codebase that is easy to maintain.
 - Implemented continuous integration and continuous deployment (CI/CD) pipelines, enabling automated and streamlined deployment processes, resulting in faster iterations and improved development efficiency.
- Set up a cloud infrastructure on Google Cloud Platform, deploying Cloud MySQL and Cloud Storage to manage and store data effectively
- Configured the App Engine Environment for hosting the backend services
- Utilized CI/CD pipelines to automate the deployment process of a Node.js application on Google Cloud Platform's App Engine
- Successfully containerized the machine learning model application using Docker and deployed it into Cloud Run.

Technology: Express.js, Node.js, Google Cloud Platform (GCP), Cloud MySQL, Cloud Storage, App Engine, Docker, Cloud Run

To-do List Mobile Application [see project](#)

- Developed a to-do list app using Flutter and SQLite for efficient database management.
- Implemented the Google Maps API for location tracking and map display, enabling the users to view their tasks on a map, helping them stay organized and on schedule.
- Utilized the MVC (Model-View-Controller) architectural pattern to ensure a clear separation of concerns and maintainable code structure.
- Created features such as task creation, notification reminders, and location tracking, with the ability to add specific locations for each task.
- Independently designed and implemented the entire application from conception to completion.

Technology: Flutter, Dart, SQLite, Google Maps API

Ticketing Web Application v2 [see project](#)

- Developed a ticketing app version using Laravel and Bootstrap, with MySQL for efficient database management.
- Implemented user authentication, authorization, ticket submission, image upload, profile management, and admin feedback features.
- Integrated a Telegram chatbot to send notifications every time a user creates a ticket
- Utilized Laravel's built-in features and libraries to seamlessly implement the app's functionality.
- Utilized the MVC (Model-View-Controller) architectural pattern to ensure a clear separation of concerns and maintainable code structure, enhancing the scalability and maintainability of the web application.
- Deployed the project into Google Cloud Run using Docker containers for scalable and efficient application hosting.
- Independently designed and implemented the entire application from conception to completion

Technology: Laravel, PHP, MySQL, Bootstrap, Telegram API, Docker, Cloud Run, Google Cloud Platform

Ticketing Web Application [see project](#)

- Developed a web-based ticketing app utilizing PHP, Bootstrap, and MySQL for efficient database management
- Implemented user authentication, authorization, ticket submission, image upload, profile management, and admin feedback features.
- Independently designed and implemented the entire application from conception to completion

Technology: PHP, MySQL, Bootstrap

CERTIFICATES & SKILLS

- Google Cloud Skill Boost, Google, Mar 2023 [see certificates](#)
- System Administration and IT Infrastructure Services, Google, Mar 2023 [see certificates](#)
- The Bits and Bytes of Computer Networking, Google, Mar 2023 [see certificates](#)
- Become a Google Cloud Engineer, Dicoding Indonesia, May 2023 [see certificates](#)
- JavaScript Programming, Dicoding Indonesia, Mar 2023 [see certificates](#)
- Build Back-End Applications with Google Cloud, Dicoding Indonesia, Mar 2023 [see certificates](#)
- Web Development, Dicoding Indonesia, Mar 2023 [see certificates](#)
- **Hard Skills:** Dart, JavaScript, PHP, C#, VB, SQL, MySQL, SQL Server, SQLite, Node.js, Express.js, ASP.NET, Laravel, Flutter, React, Firebase, Google Cloud Platform (GCP), Docker, Git, Power BI, TensorFlow Lite, Machine Learning.
- **Soft Skills:** Leadership, Collaboration, Problem-Solving, Project Management, Adaptability, Attention to Detail, Communication, Time Management.