MUHAMMAD ZAKY FATHURAHIM

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ABOUT ME

I am a Software Engineering undergraduate at Telkom University, with a solid understanding of data structures. I possess expertise in fundamental structures such as linked lists, multi-linked lists, stacks, queues, trees, and graphs. Skillfully applying these structures, I enhance functionality and optimize solutions. My practical experience complements my theoretical knowledge, enabling seamless integration of data structures into software projects for efficient data processing and empowering the development of robust applications.

EXPERIENCES

PT Inter Pariwara Global

Full Stack Web Developer Intern

(July 2023 - Present)

Recreating a timesheet application from Visual Basic on desktop to web using PHP and CodeIgniter4.

- Creating the user interface using Bootstrap.
- Developing Application Programming Interface (API).
- Configuring Routes.
- Translating programming algoritm/logic from VB to PHP.
- Developing Database using MySQL.
- Deploying the Web Application to a Local Server.

Chevalier Laboratory

Front End Web Developer

(January 2023 - Present)

- Collaborating with Backend Developers to integrate the user interface with business logic and the database.
- Slicing the UI created by UI/UX Designers using Tailwind CSS and React JS.
- Writing Clean and Efficient Code to ensure the codebase is maintainable, scalable, and performant.
- Developed web applications using React.js, leveraging React hooks to create dynamic and interactive components. Utilized React Router to implement smooth and intuitive navigation within the application.

Central Computer Improvement

Front End Web Developer

(December 2021 - January 2023)

- learning to create website interfaces from scratch using HTML, CSS, and JavaScript, as well as getting acquainted with the React.js library and the Tailwind CSS framework.
- Slicing from Figma using HTML and CSS.

EDUCATION

Telkom University

Bachelors of Technology, Computer Software Engineering

(September 2021 - Present)

3.78

- Developed the "Telkom Database" console application using the Multi Linked List data structure in C++.
- Developed "Koceku," a web application designed to provide users with a convenient and efficient digital payment solution. Utilized Spring Boot, MVC, Java, MySQL, ORM (such as Hibernate), and Tailwind CSS for styling.
- Developed the "Telyu Project," a GUI application using the C# programming language. It incorporates several software development techniques, including parameterization, defensive programming, adherence to naming conventions, clean code practices, and JSON serialization and deserialization.
- Possess a strong grasp of fundamental programming concepts, including conditional statements, loop structures, as well as list, array, and collection data structures.
- Continuously engaging in ongoing learning and staying updated with the latest technologies and best practices within the context of my academic journey to enhance the quality and efficiency of my work.

PROJECTS

Timesheet (ERP Module)

(July 2023 - October 2023)

Timesheet is a module within an Enterprise Resource Planning (ERP) system that is used to track and manage employee working hours and activities.

- Developed using PHP programming language along with the CodeIgniter 4 framework.
- Created a well-structured model to handle data processing and management for the Timesheet module.
- Set up and configured routes in the CodeIgniter 4 framework to ensure seamless navigation and interaction with the Timesheet module.
- Developed an API (Application Programming Interface) to facilitate communication and data exchange between different components of the Timesheet module.
- Designed an intuitive and user-friendly interface for the Timesheet module using the Bootstrap framework.
- Integrated Bootstrap to enhance the visual appeal and responsiveness of the user interface within the Timesheet module.

MyCheva (Learning Management System)

(April 2023 - August 2023)

MyCheva is the Learning Management System (LMS) developed by Chevalier Lab. It is a web-based platform designed to facilitate the management and delivery of educational courses and training programs within the laboratory.
As a Front-End Developer, my responsibilities included the following task:

- Collaborating with UI/UX designers to transform design mockups or wireframes into functional user interfaces.
- Implementing the front-end components and features of the myCheva platform using HTML, CSS, and JavaScript.
- Integrating front-end frameworks and libraries like Tailwind CSS and React.js to enhance the functionality and interactivity of the myCheva platform.
- Working closely with back-end developers to integrate the front-end components with the server-side functionality.
- Participating in regular meetings and discussions to provide updates on the development progress and coordinate tasks.

Koceku

(March 2023 - June 2023)

Koceku is a collaborative web application developed with a team. The application follows the MVC architecture and is built using Spring Boot, Java, MySQL, Tymeleaf, and Tailwind CSS.
In the Koceku project, my responsibilities included:

- Front-end Development: implementing the front-end views and components using Tailwind CSS and focused on creating visually appealing and responsive user interfaces that provided an intuitive and user-friendly experience.
- Back-end Development: developing the back-end of the application using Java. This involved creating models and implementing the necessary logic for each function. Additionally, I designed and implemented APIs to enable smooth communication between the front-end and back-end.
- Object-Oriented Programming implementation: utilized OOP concepts throughout the development process to ensure a modular and maintainable codebase. This approach allowed for easier code organization, reusability, and scalability.
- Integration with Spring Boot: integrate the front-end with the back-end logic implemented in Spring Boot. Thymeleaf was used as the template engine to achieve dynamic rendering of views and efficient data binding between the two layers.
- Database Development with Spring Data JPA: I utilized the Spring Data JPA framework to design and manage the application's database. This involved defining entities, establishing relationships between them, and implementing data access methods. Data integrity and consistency were carefully maintained throughout the development process.

Telyu Project

(April 2023 - June 2023)

Developed a desktop GUI application using C# as part of a team. The application allowed for CRUD operations, including adding projects, adding students to projects, deleting projects, and updating projects.
Responsibilities:

- Developed backend functions and models using C#.
- Implemented the frontend using GUI technologies
- Integrated the backend and frontend components of the application.
- Applied table-driven techniques for the login feature
- Implemented parameterization/generic functionality for the user session feature.
- Implemented JSON serialization and deserialization techniques to seamlessly convert data between C# objects and JSON format, maintaining data integrity.

Bridge Structural Condition Monitoring System

(September 2022 - December 2022)

Project development of a bridge structure condition monitoring system using a camera (collaboration Telkom University with PT INTI) as a member of the Computer Vision Team, my responsibilities included the following tasks:

- Research and Familiarization: Conduct research on the YOLO algorithm and its applications in object detection and Understand the specific requirements and constraints of the truck detection project.
- Data Collection and Preparation: Gather relevant truck images and annotate them with appropriate labels for training the model and Preprocess the collected data to ensure consistency and quality.
- Model Training: Implement the YOLO algorithm using Java and Train the model using the annotated truck images and optimize its performance.
- Truck Detection and Classification: Apply the YOLO algorithm to the live video feed to detect and classify trucks and Implement post-processing techniques to refine and filter the detected results.
- Integration with Vibration Measurement Team: Worked together to establish a signal exchange mechanism where the Vibration Measurement Team would send signals indicating the presence of a truck to validate the detections.

SKILLS

HTML, CSS, JavaScript, PHP, Codeigniter4, Tailwind CSS, Bootstrap, Python, React.js, Golang, C#, MySQL, Object Oriented Programming, Native Indonesia, English (Limited working proficiency), Analytical Skills, Multitasking, Problem Solving, Time Management, Microsoft Office, Teamwork.

CERTIFICATIONS

PHP Basic - Sololearn
https://www.sololearn.com/certificates/CT-FSPJCWOH
June 2023

This certificate acknowledges the successful completion of the "PHP Basic" course on SoloLearn. Through this course, the recipient has gained fundamental knowledge and practical skills in PHP programming. The certificate holder has demonstrated an understanding of PHP syntax, variables, data types, control structures, functions, and basic concepts of web development using PHP