Project 1 of 5

Ruby-chan is a self-initiated Chrome Extension that displays furigana and English definitions when users highlight Japanese text. Inspired by my interest in the Japanese language, I developed this tool to assist learners in reading kanji-heavy websites without built-in support. The extension improves accessibility for language learners by providing in-browser definitions through a responsive popup interface. I independently designed and implemented the full system using Kuromoji.js for tokenization and the Jisho API for bilingual dictionary data. Through this project, I strengthened my skills in Chrome extension architecture, asynchronous interaction, and user-focused product development while solving a real personal problem. I also had the opportunity to create something I genuinely needed myself.

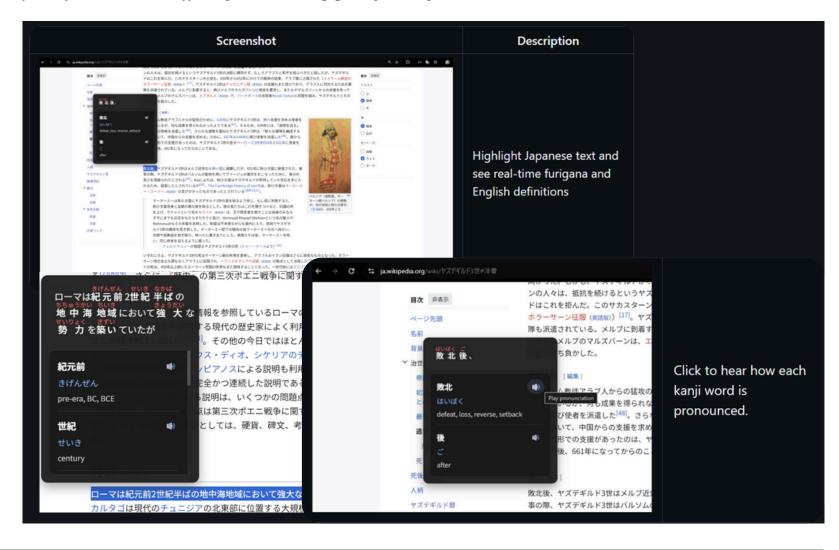
Year Accomplished 2025

Role/Position

Developer

Publication Link

Github Link



Description

WellBee

Year Accomplished 2025

Role/Position

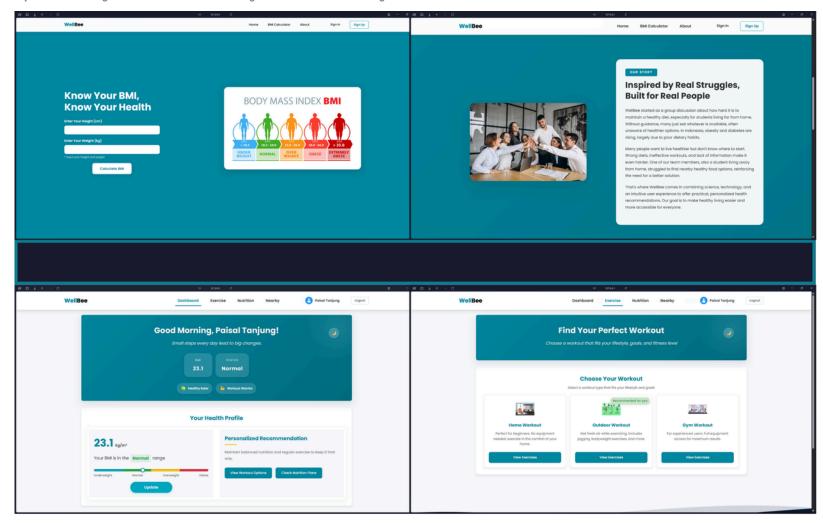
Project Leader & Full-Stack Developer

Publication Link

Github Link

Description

WellBee is a health recommendation platform developed as a group project for a Software Engineering course assignment. The system is designed to help university students make healthier lifestyle decisions by calculating BMI and generating personalized nutrition and exercise plans based on WHO standards, while integrating location features to help users discover nearby gyms, parks, and healthy food options. The platform empowers students to track their progress, access tailored recommendations, and make informed choices for their well-being. As the Project Leader, I directed product development, designed the system architecture, and implemented the full-stack solution, including the BMI calculator, recommendation logic, and user progress dashboards. This project expanded my full-stack development experience and taught me how to translate health guidelines into accessible digital solutions.



Smart Pedestrian Dynamic Traffic Light

Year Accomplished 2024

Role/Position

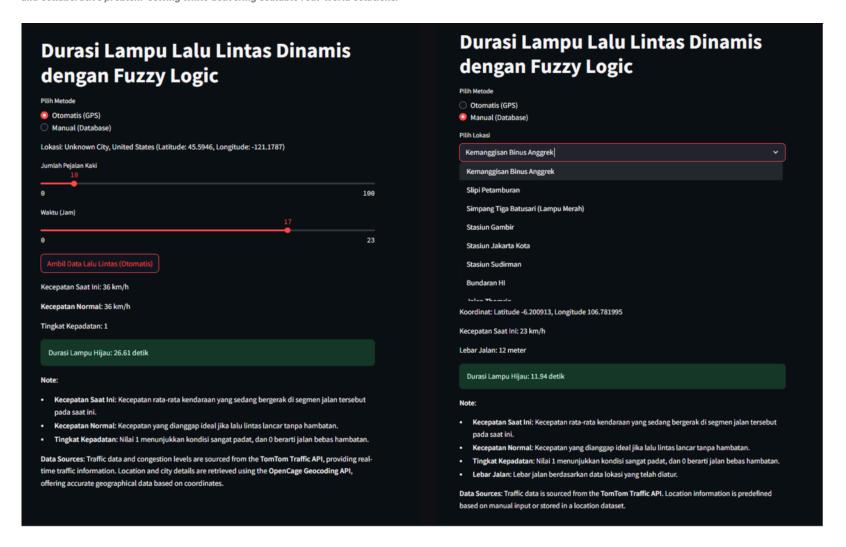
Project Leader & Developer

Publication Link

Live Demo

Description

The Smart Traffic Light System was developed as a group project for an Artificial Intelligence course assignment. This system dynamically adjusts green light durations at pedestrian crossings using fuzzy logic and real-time traffic data. It integrates TomTom Traffic and OpenCage Geocoding APIs and features a Streamlit interface that simulates both GPS-based and manual input modes. The system enhances urban walkability by minimizing pedestrian wait times and improving compliance with crossing signals through adaptive, data-driven timing. As Team Leader, I designed the fuzzy inference model, led API integration, and managed the deployment workflows. Through this project, I strengthened my technical skills in AI, fuzzy logic, and collaborative problem-solving while delivering scalable real-world solutions.



Life is Precious

Description

Life is Precious is a fully self-initiated web application designed to encourage daily reflection and emotional well-being. The app allows users to journal, track mood patterns, and receive motivational feedback while ensuring privacy through local data storage. It promotes consistent self-reflection and emotional awareness, helping users monitor their mental well-being over time. I independently designed and developed the entire system, including responsive user interface, dark mode support, calendar-based mood tracking, and simple analytics. This project deepened my ability to design empathetic user experiences while building functional, emotionally supportive digital tools.

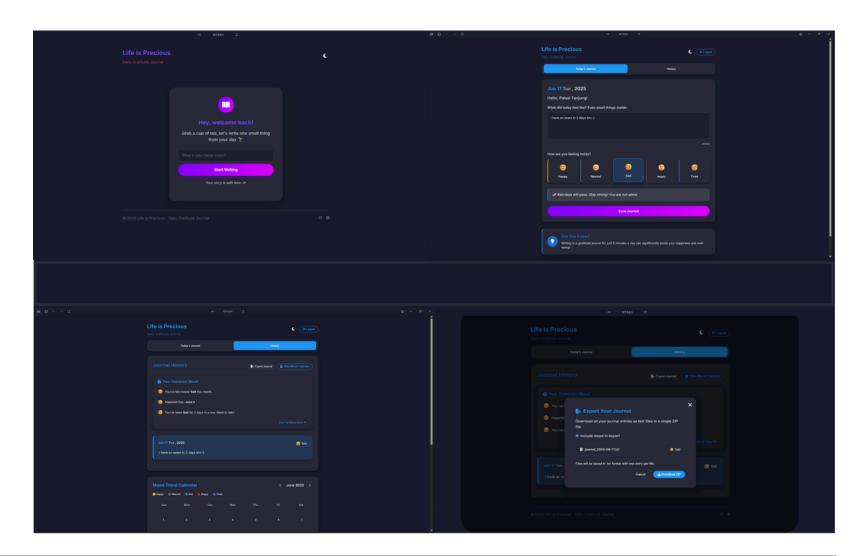
Year Accomplished 2025

Role/Position

Developer

Publication Link

Live Demo



BNCC TPM Final Project – Hackathon Website Development

Year Accomplished 2024

Role/Position Front-End Developer

Publication Link Live Demo

Description

The TPM Hackathon Website was developed as part of BNCC's Technology Project Member (TPM) training program, simulating a real-world event management system. The platform included landing pages, login systems, and registration forms, providing a practical simulation of building a functional event management system under realistic team-based project constraints. I contributed as a Front-End Developer, designing and developing key interface components including landing pages, authentication forms, and responsive layouts. Through this project, I developed strong technical skills in responsive web design and front-end component development while improving my teamwork, time management, and communication skills within a structured collaborative environment.

