

Bryan Chandra Gunawan

AI Engineer | Machine Learning | LLM, RAG, Computer Vision & Applied AI Systems

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Summary

I am an adventurous and curious 6th-semester Informatics undergraduate at Petra Christian University, driven by a balance of analytical thinking and creativity. With hands-on experience in developing projects involving machine learning, deep learning, and automation, I have developed a strong passion for Artificial Intelligence and Large Language Models (LLMs). I am eager to translate these skills into the professional world, taking on challenges to build innovative, AI-driven solutions.

Education

Petra Christian University (GPA: 3.46)

Bachelor of Science, Computer Science (AI Specialization)

Surabaya, Indonesia

August 2023 – Present

Petra 2 Senior High School - Surabaya

Science Program student.

Surabaya, Indonesia

Jul 2020 - Jun 2023

Leadership

Head of IT | Bharatika Art Festival

Petra Christian University | Indonesia

Onsite

2026

- Led a cross-functional team of **10 creative designers and web developers** to build an Event Management System from **UI/UX to deployment**.
- Empowered members through **technical mentorship** and **agile** workflows, improving operational efficiency for **700+** participants.

Projects

[TripCraft](#) | FastAPI, Python, Gemini API, Pydantic, REST APIs

- Built a **multi-agent RAG travel planner** coordinating seven task-specific agents to generate **3–5 day itineraries in under 60 seconds**, performing budget and feasibility validation, tested across **20+ travel scenarios** with consistent constraint satisfaction.

[Petra Library Seat Detector](#) | Python, YOLOv8, OpenCV

- Built a **YOLOv8-based computer vision pipeline** to detect library seat occupancy, using **IoU-based spatial mapping** to classify seat states (occupied, on-hold, empty) with automated visualization and **JSON reporting**.

Finance Manager Assistant | n8n, Gemini, Google Sheet

- Built a **multimodal AI finance assistant** using an agent-based workflow in **n8n** to perform intent routing and transaction extraction from **text, voice, and receipt images**, automatically logging structured expense records to Google Sheets
- Link : [Project Finance Manager](#)

Event Management System (Bharatika Festival) | [LINK](#) | Laravel, REST API, MySQL, cPanel

- **Improved event operational efficiency for 300+ participants** by analyzing and redesigning inefficient workflows, then developing a centralized **LARAVEL** event management system, resulting in **better data organization and reduced manual coordination**.

Technical Skills

Programming: Python, Java, SQL, JavaScript, PHP, HTML/CSS

AI / Machine Learning: scikit-learn, OpenCV, Ultralytics, pandas, NumPy, PyTorch, TensorFlow, HuggingFace Transformers,

Frameworks & Tools: FastAPI, Flask, Laravel, React, TailwindCSS, Streamlit, Git, VS Code, Google Colab

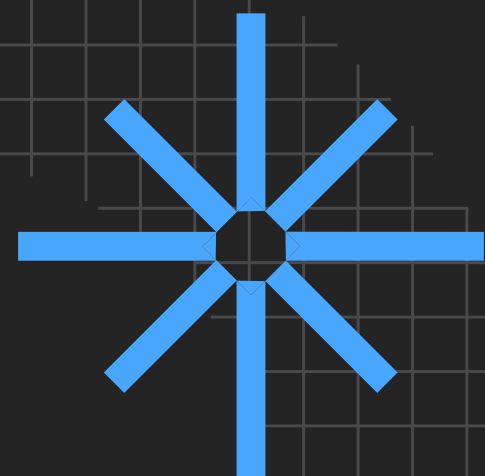
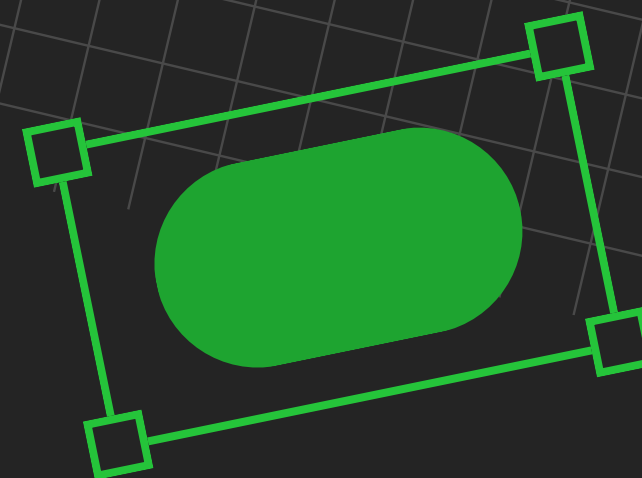
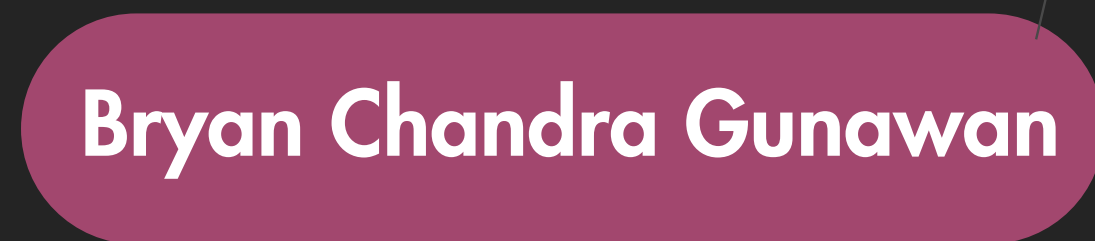
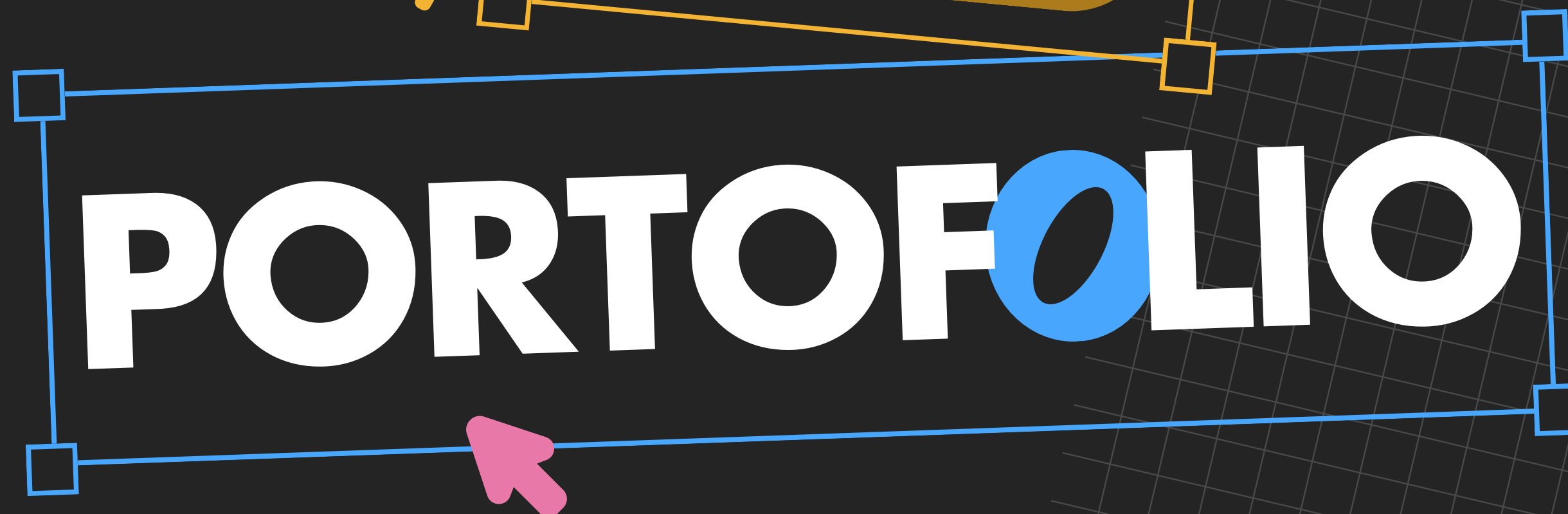
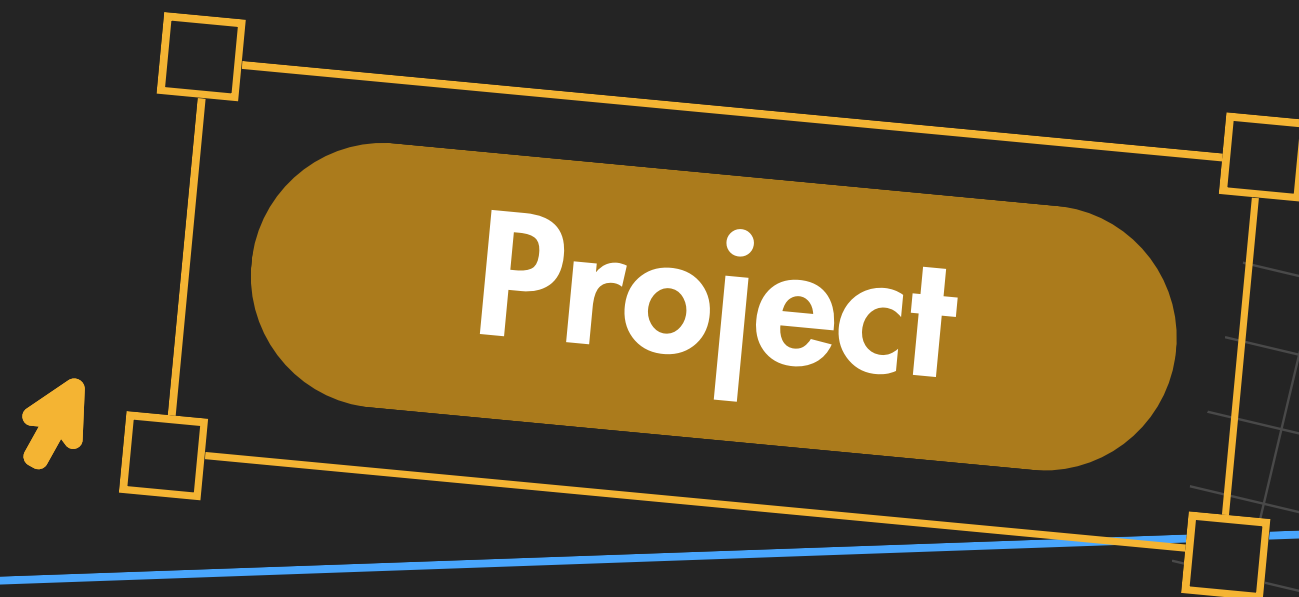
AI Development Tools: Claude Code, n8n, Lovable

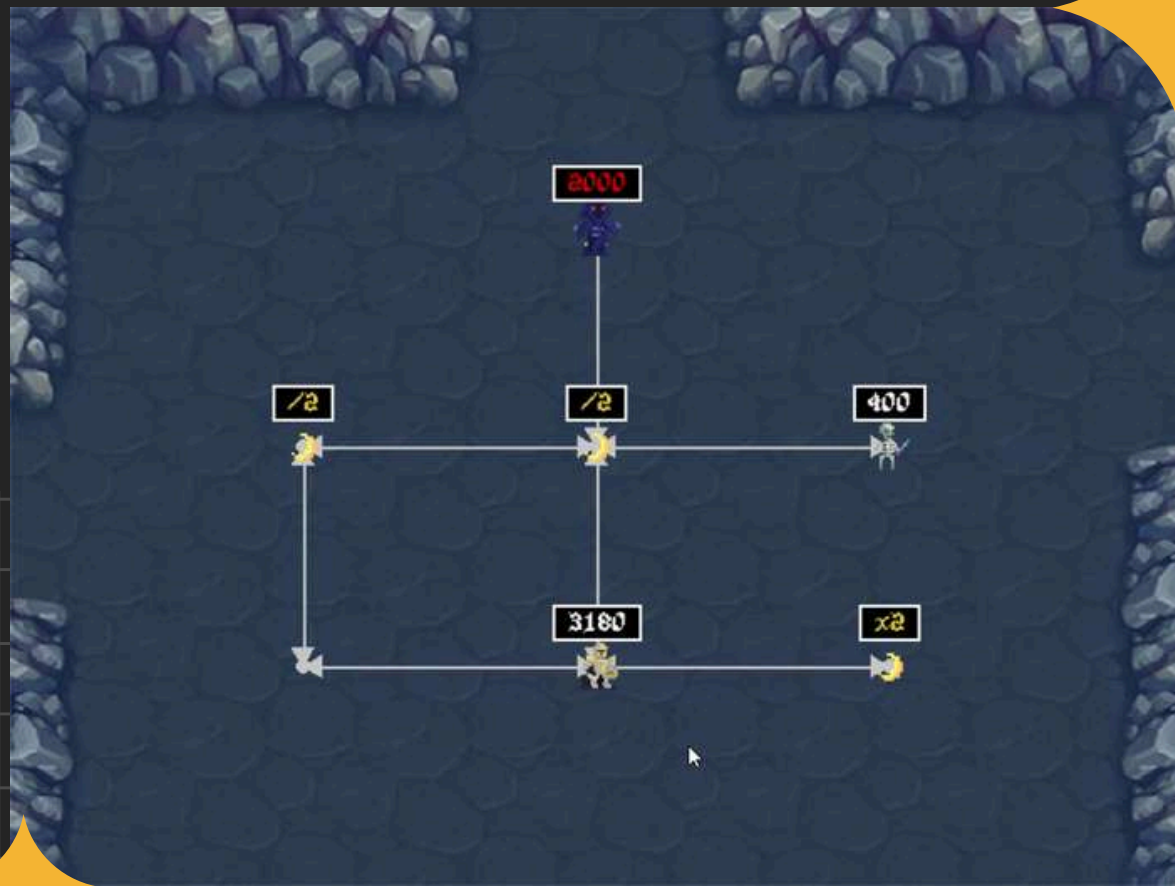
Courses & Certifications

- AWS Academy Machine Learning Foundations Training Badge
- AWS Academy Data Engineering Training Badge
- Associate Data Scientist – BNSP (2025)
- Progressive Coding Camp Bootcamp powered by DBS Foundation x Dicoding (AI Engineer Path)

Additional Information

- **Languages:** English, Indonesia
- **Portfolio Link:**  [Portfolio Bryan.pdf](#)

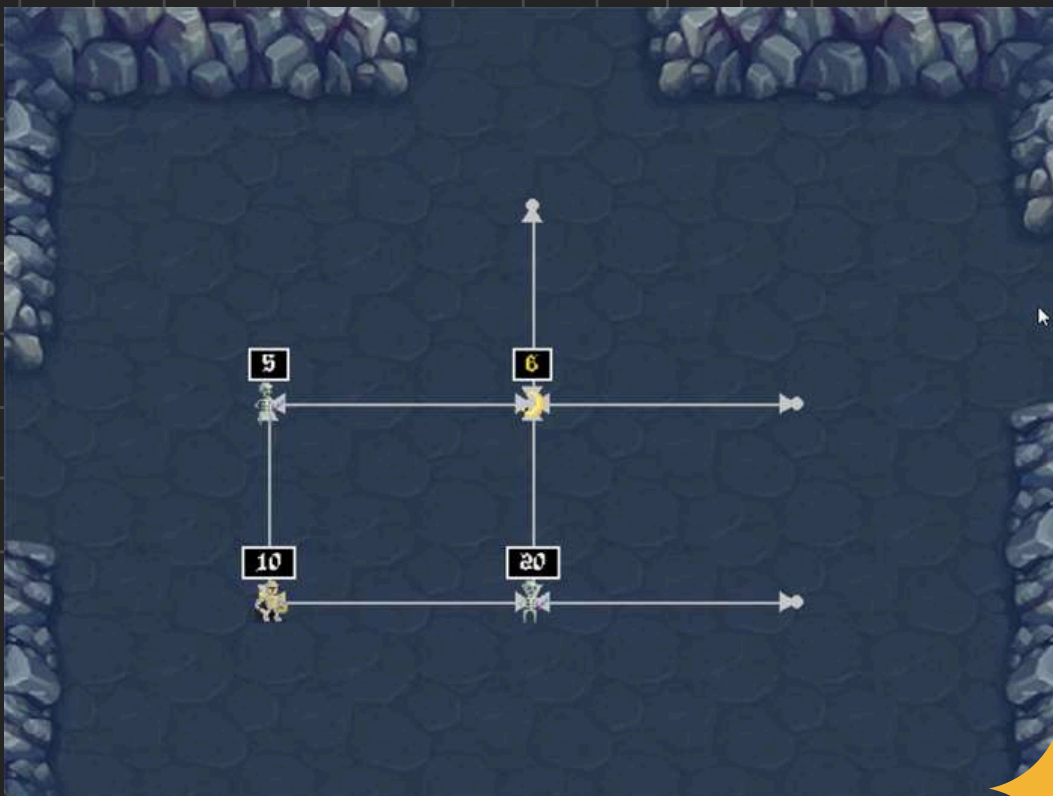


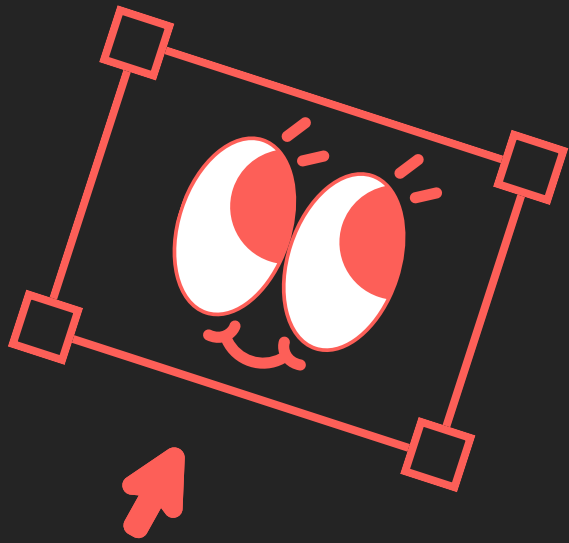


Power Up



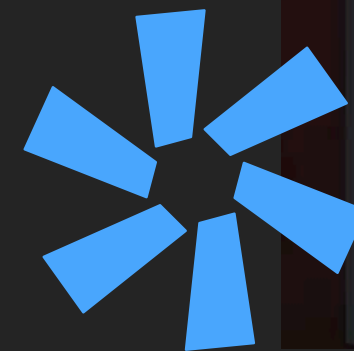
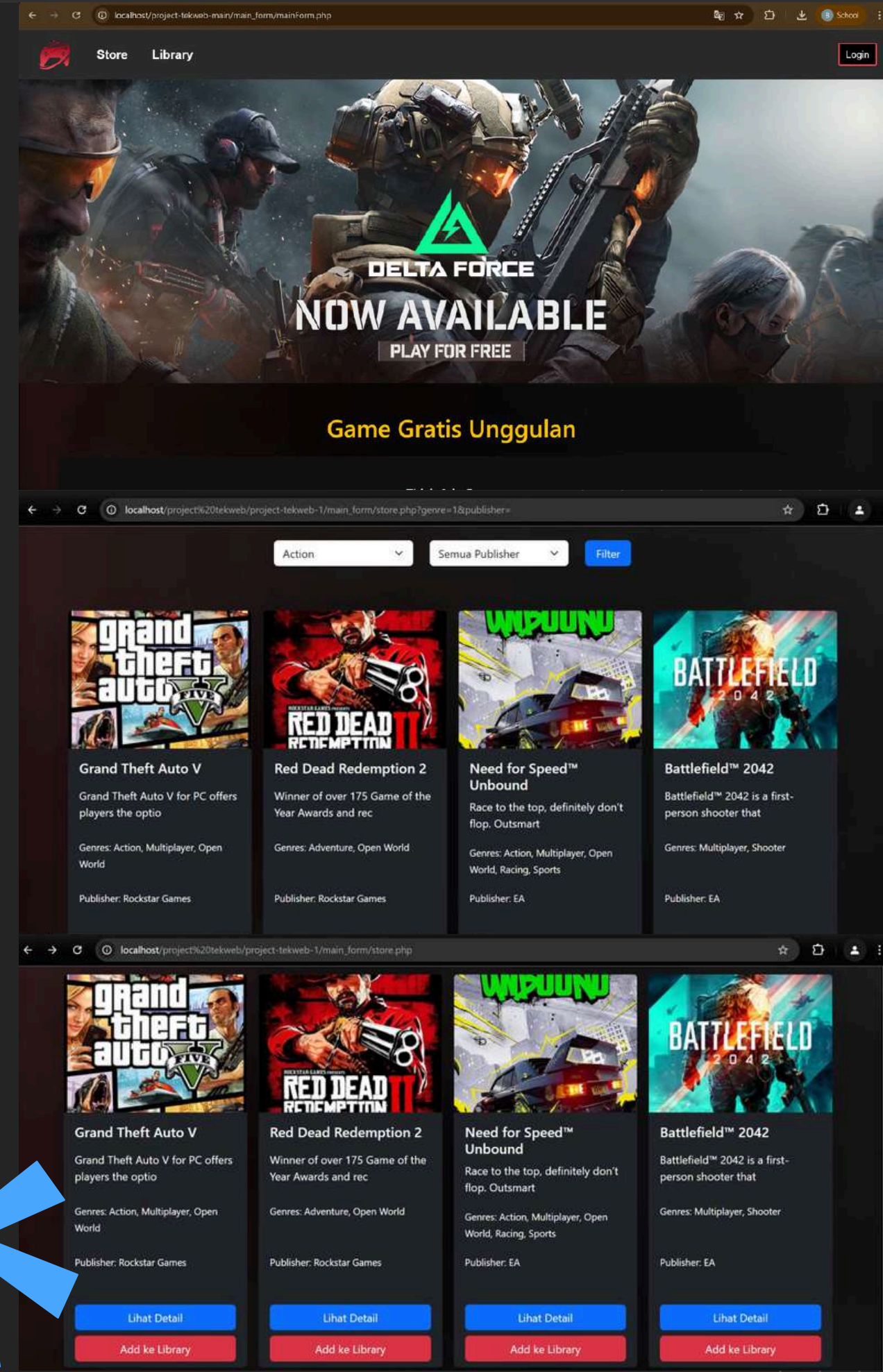
Power Up Game is a Python-based strategy game that I developed as part of a Data Structures class project. The game features a node-based map system where players navigate through connected positions to battle enemies and collect power-ups across various stages. This project allowed me to explore practical implementations of Graphs for movement logic, Hash Maps (Dictionaries) for position management, and Arrays for handling game state and object referencing. Power Up Game reflects my interest in translating theoretical concepts such as graph traversal and memory optimization into functional, interactive gameplay mechanics.

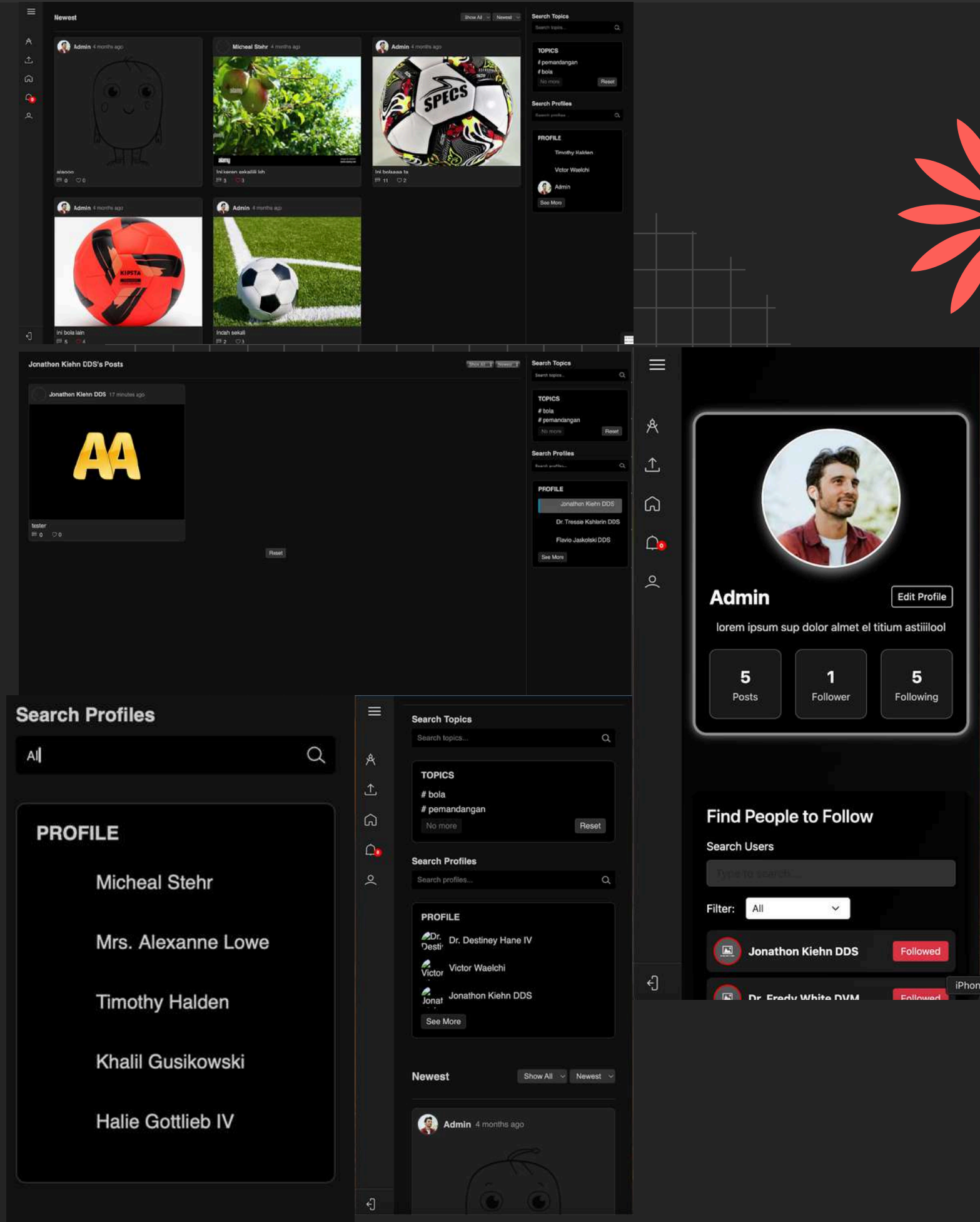




UAP

UAP is a digital game distribution platform that I made as part of a Web Technologies class project. The website showcases a comprehensive game marketplace and includes a storefront, personal library, publisher portal, and admin dashboard. This project allowed me to explore Native PHP for backend logic, MySQL for complex database management, Bootstrap, JavaScript, and SweetAlert2. UAP reflects my interest in building robust, role-based web applications with dynamic content and secure authentication systems.

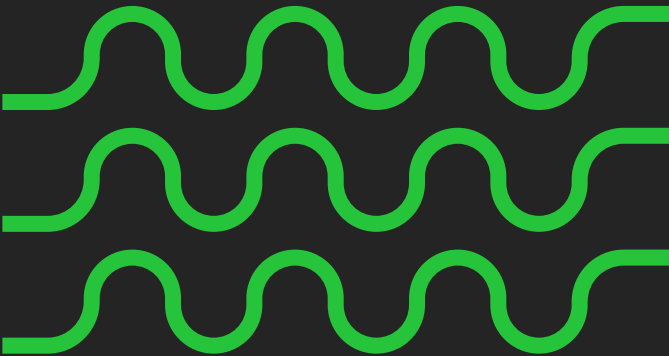




Toddit



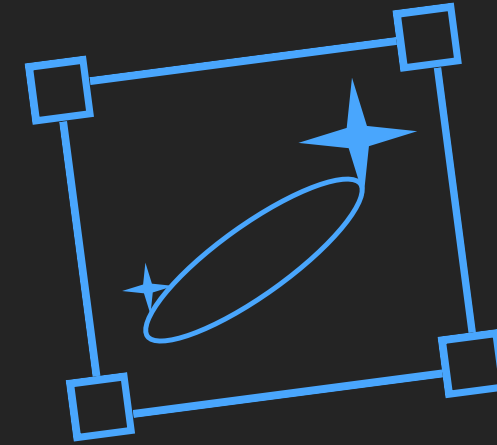
Toddit is a Reddit-style social platform on Laravel (Blade/PHP, MySQL) with a clean RESTful MVC structure and Vite-based assets; designed for fast threads, clear UX, and easy feature growth. I made this as part of a Web Framework Development class project. The website showcases dynamic discussion threads, nested comments, and robust moderation tools. This project allowed me to master Laravel 9, Eloquent ORM, and AJAX interactivity. Toddit reflects my interest in creating performant, user-centric web applications with scalable architectures.





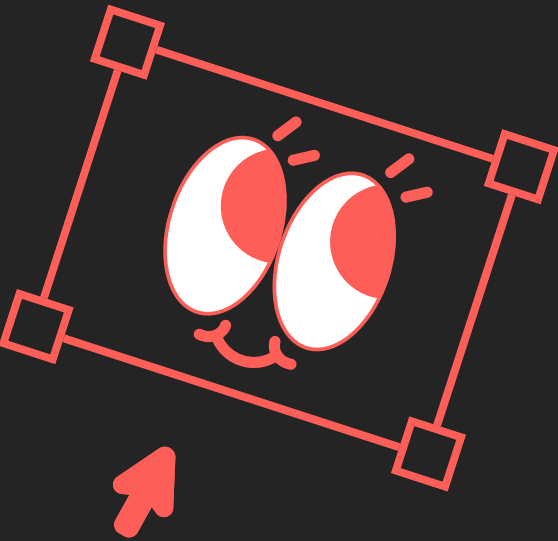
Pokemon: Gabite

Gabite 3D Character was developed as part of the Computer Graphics project. Built using WebGL and JavaScript, this project features a fully modeled 3D character of the Pokémon Gabite along with its surrounding environment. The implementation includes hierarchical object structures and multiple animation techniques such as rotation, scaling, translation, and arbitrary axis rotation.

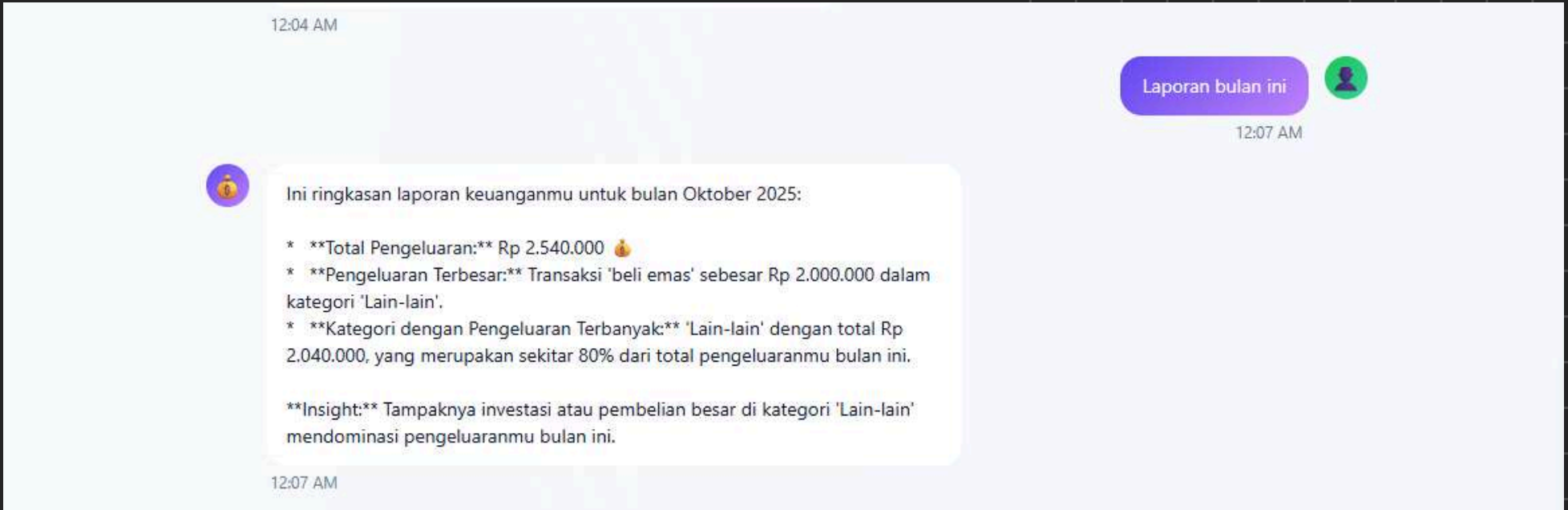
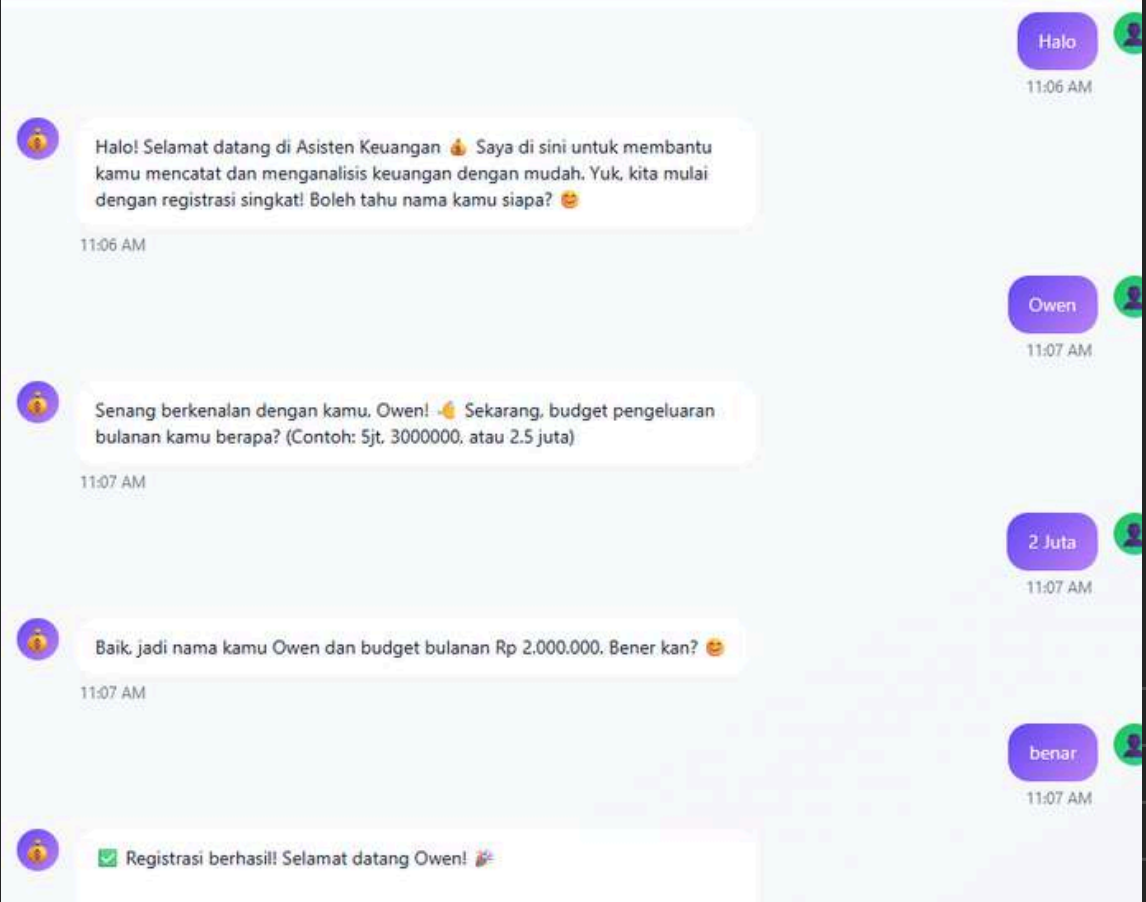
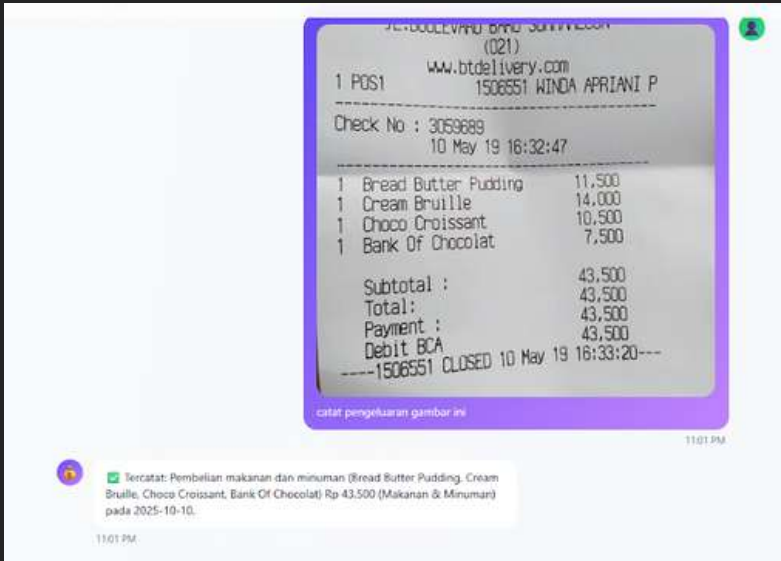
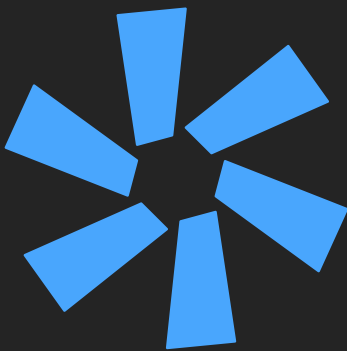




Finance Manager



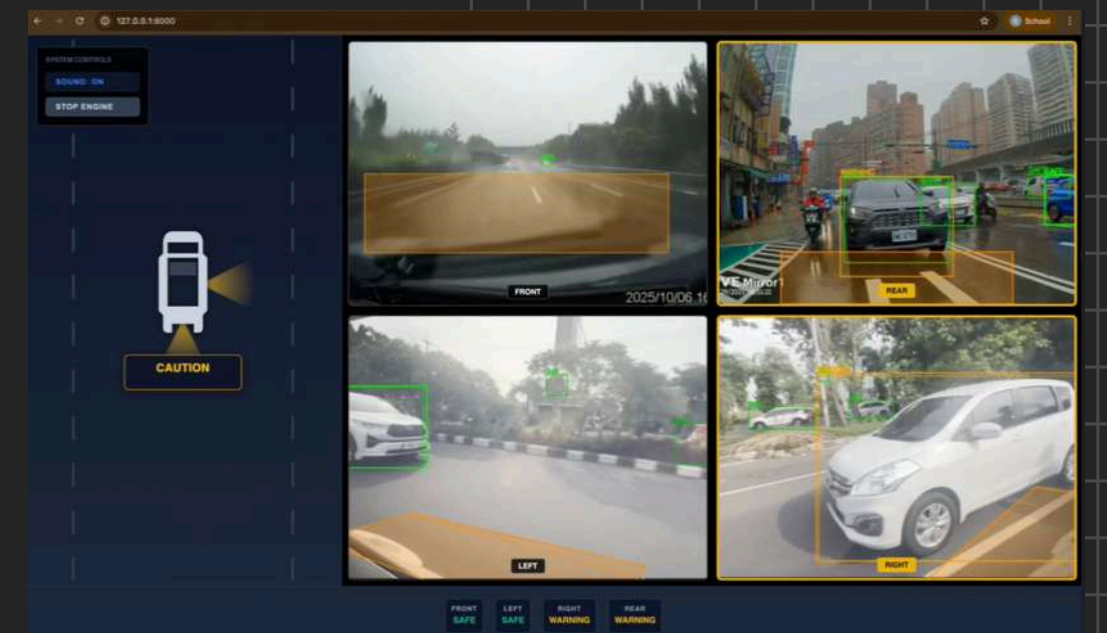
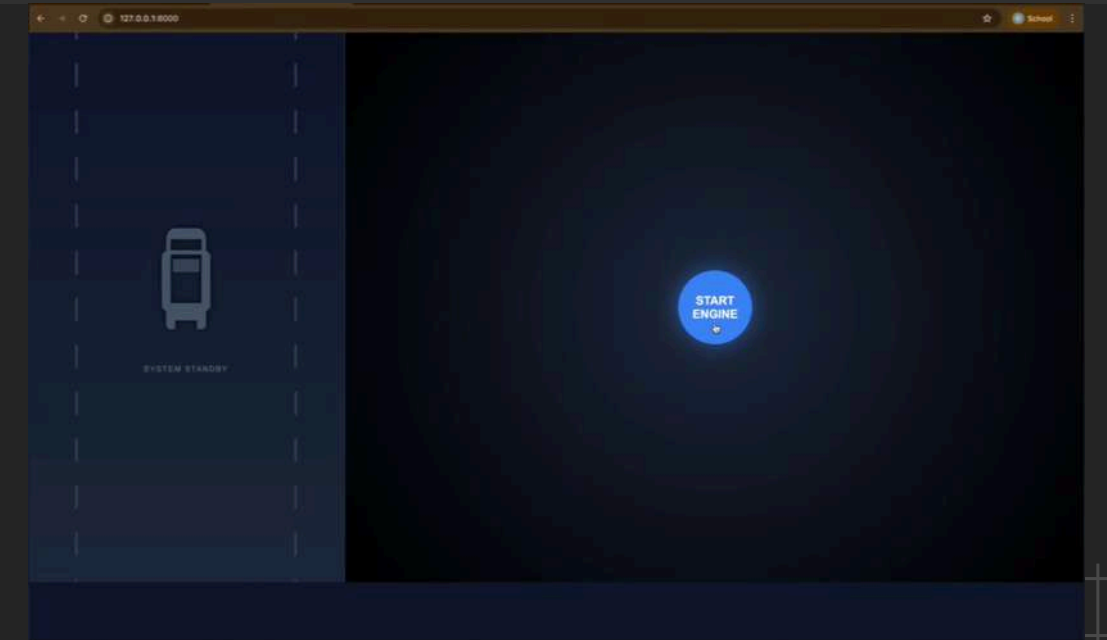
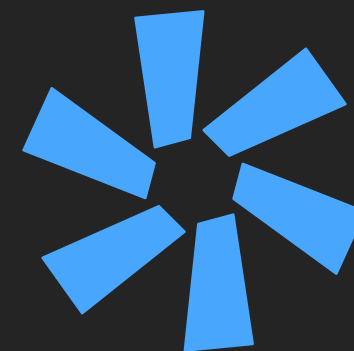
Finance Manager is a web-based financial management tool. Designed n8n multi-agent LLM workflows for a web-based finance tracker with webhook ingestion supporting OCR/STT/chat inputs and two-way clarification, delivered automated reports/insights (top/least categories, averages, anomalies) with real-time/scheduled outputs and bi-directional Google Sheets sync.



YOLO Implementation for Vehicle Blind Spot Early Warning



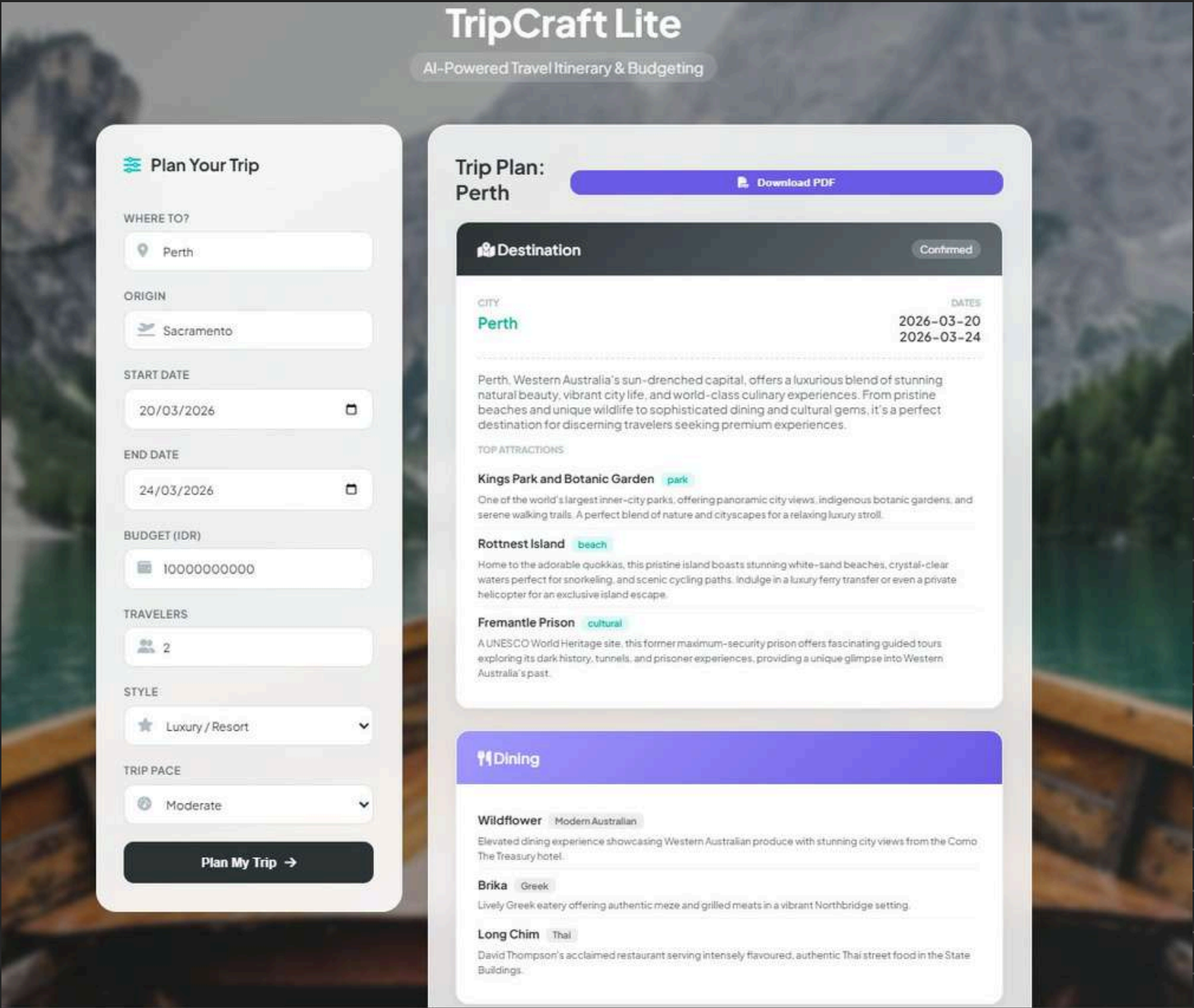
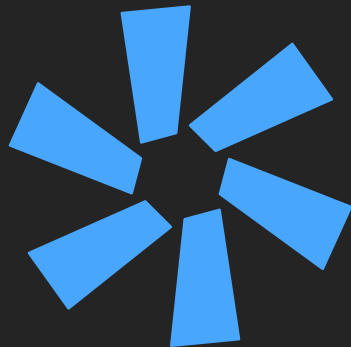
Intelligent Blind Spot Monitor is a computer vision-based driver assistance system designed for passenger vehicles. Engineered a weather-robust detection pipeline using YOLOv11n fine-tuned on the BDD100K dataset, capable of identifying motorcycles and cars in blind spots across four camera views (front, rear, and sides). The system features custom Region of Interest (ROI) overlap logic with optical flow analysis for precise danger scoring and delivers a real-time visual dashboard with color-coded collision warnings (Safe/Warning/Danger), specifically validated for high-density Indonesian traffic and adverse weather conditions.





TripCraft Lite

TripCraft is an AI-powered travel planning application. Designed a multi-agent LLM orchestration architecture for a web-based itinerary generator supporting specialized agents (flights, hotels, dining, budget) and automated verification, delivered personalized, conflict-free PDF itineraries with real-time API integrations (Amadeus, OpenTripMap) and RAG-based smart data retrieval.

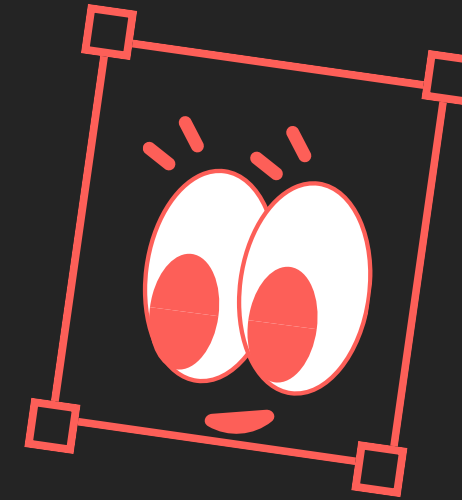




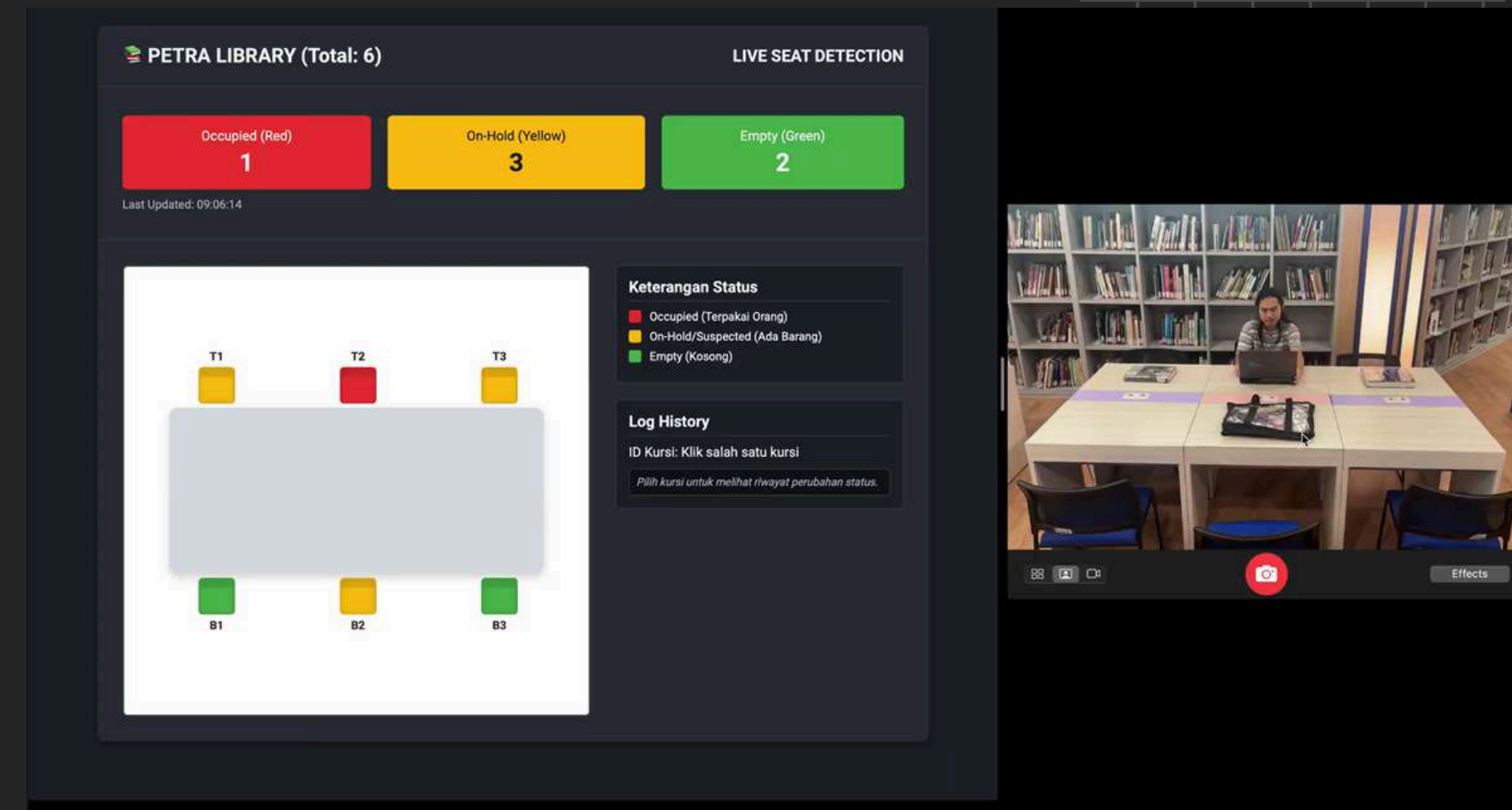
DAY 1 – 2026-02-18	
● Lunch	Krishnarpan Restaurant Nepali Traditional • Rp 4,500/person
● Dinner	Le Sherpa French, European • Fine Dining • Rp 4,000/person
● ACTIVITIES	
1. En Route to Destination (All Day) Travel day	
Day 1 Total: Rp 0	
DAY 2 – 2026-02-19	
● Lunch	Bhojan Griha Nepali Traditional • Rp 3,500/person
● Dinner	Rox Restaurant European • Fine Dining • Rp 3,800/person
● ACTIVITIES	
1. Everest Base Camp Helicopter Tour (09:00) An exclusive luxury helicopter tour offering unparalleled panoramic views of the Everest region, including a landing near Everest Base Camp or Kala Patthar for magnificent photo opportunities. Experience the Himalayas up close in supreme comfort.	
2. Lunch: Bhojan Griha (12:30) Nepali Traditional - Try: Traditional Nepali Thali, Aala (local liquor)	
3. Boudhanath Stupa (14:30) A UNESCO World Heritage site and one of the largest spherical stupas in Nepal, serving as the spiritual heart of Tibetan Buddhism. Witness pilgrims circumambulating, spinning prayer wheels, and immerse in the serene atmosphere.	
4. Check-in: The Dwarika's Hotel (15:00) Check-in to hotel accommodation	
5. Dinner: Rox Restaurant (19:00) European, Fine Dining - Try: Seafood Grills, Signature Steaks	
Day 2 Total: Rp 107,400	
DAY 3 – 2026-02-20	
● Lunch	Shogun Japanese Restaurant Japanese • Rp 2,800/person
● Dinner	Newa Lahana Newari Traditional • Rp 600/person
● ACTIVITIES	
1. Pashupatinath Temple (09:00) Nepal's most sacred Hindu temple dedicated to Lord Shiva, situated on the banks of the holy Bagmati River. Observe Hindu cremation rituals and sadhus (holy men), offering a profound glimpse into spiritual traditions.	
2. Lunch: Shogun Japanese Restaurant (12:30) Japanese - Try: Sushi & Sashimi Platters, Tempura	
3. Bhaktapur Durbar Square (14:30) Step back in time in this meticulously preserved ancient city, a UNESCO World Heritage site. Explore stunning palaces, temples, and courtyards adorned with intricate Newari artistry and architecture.	
4. Dinner: Newa Lahana (19:00) Newari Traditional - Try: Chatarani, Bara	
Day 3 Total: Rp 586,800	

Financials		Within Budget
ACCOMMODATION		Rp 3,200,000
FLIGHTS		Rp 35,813,440
FOOD & DINING		Rp 940,000
ACTIVITIES		Rp 5,670,000
TRANSPORT		Rp 300,000
MISCELLANEOUS		Rp 600,000
TOTAL ESTIMATED COST		Rp 46,523,440

Library Seat Detect



Library Seat Detect is an automated occupancy monitoring system that I developed as part of a Computer Vision project. Built using Python, YOLOv8, and OpenCV, the application detects human presence and maps it to predefined seating zones using coordinate-based polygons. The system features real-time object detection, spatial overlap analysis to determine seat availability, and visual status reporting (Occupied/Available). This project allowed me to master Deep Learning integration, JSON-based configuration, and geometric logic for spatial analysis. Library Seat Detect reflects my interest in applying AI solutions to build smart surveillance systems for efficient facility management.

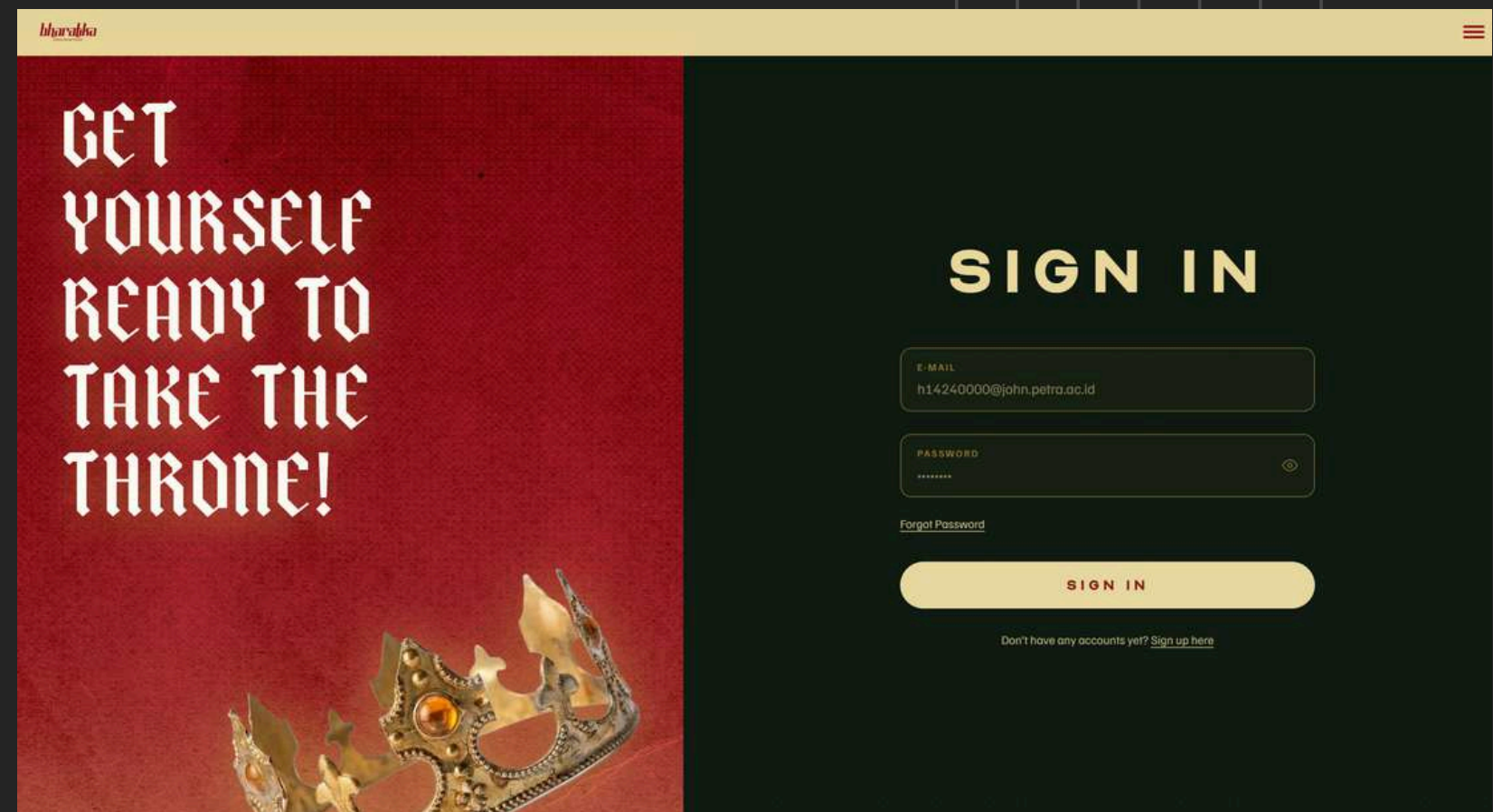
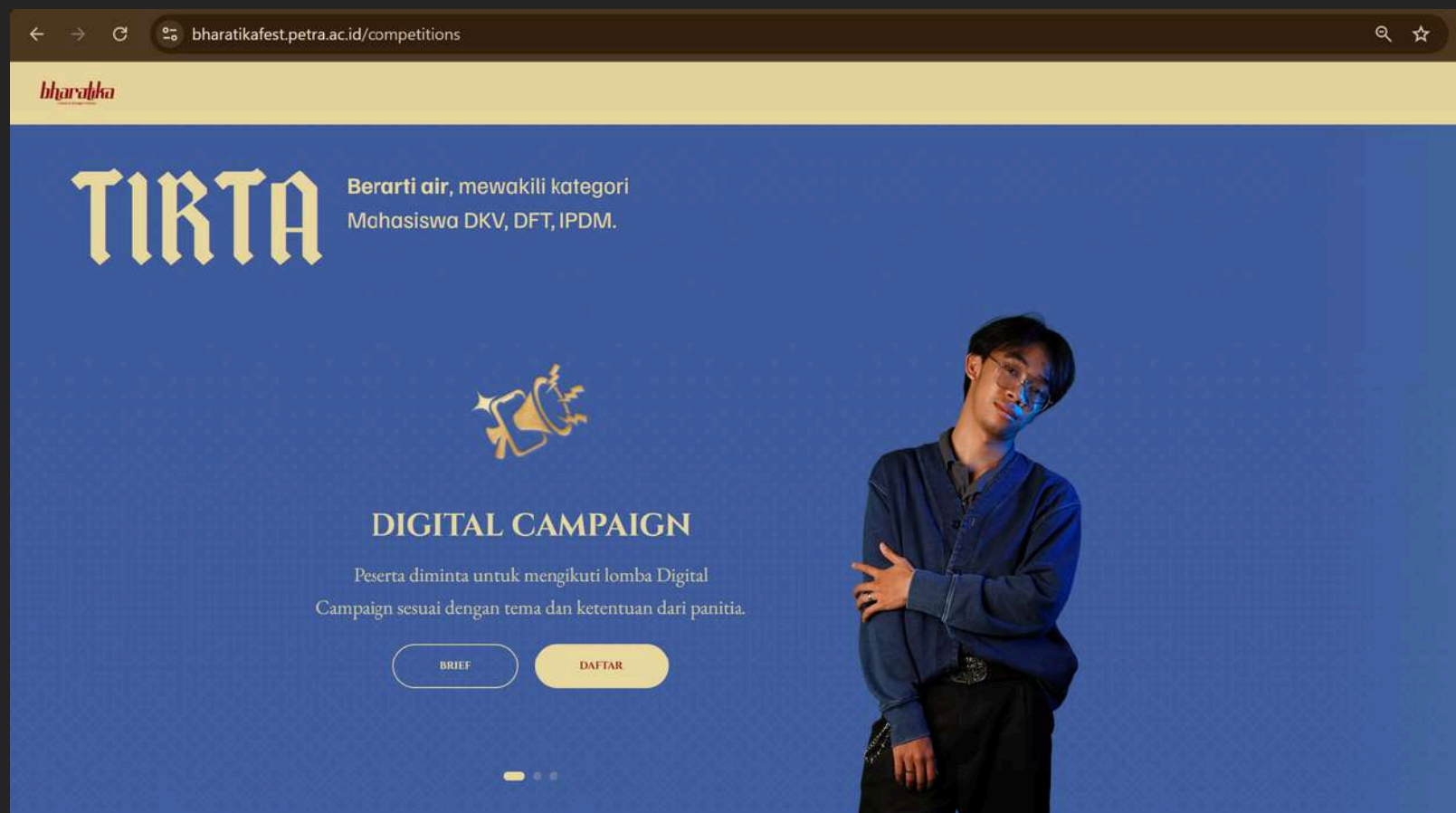




Bharatika Festival

Bharatika Festival Platform is a full-stack web application built for Petra Christian University's annual international creative design competition. Engineered a complete participant management system using Laravel 12, Inertia.js, and React, supporting 13 competition categories across four themed divisions (Tirta, Bayu, Agni, Buana). The platform features a multi-step registration flow with file upload handling for payment proofs and student ID verification, an admin verification panel with real-time status tracking and automated participant code generation, and a work submission system with file management for approved participants. Includes an Excel export feature with embedded payment proof images via PHPSpreadsheet, automated email notifications upon verification, and a role-based access control system distinguishing participants from administrators. The frontend delivers a medieval-aesthetic UI with custom page transition animations, responsive mobile design, and an Inertia SPA experience — specifically built to handle high-volume registration traffic for an event with over a dozen simultaneous competition tracks.







Lets Work Together



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