

RANTO BASTARA HAMONANGAN SITORUS

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ABOUT

Informatics Engineering graduate with hands-on experience developing backend systems and automation tools using Laravel, Playwright, and SQL databases. Experienced in designing and developing scalable APIs, automating business processes, and delivering production-ready applications. Strong foundation in backend development, software engineering, and database management.

EDUCATION

Informatics Engineering 2022 – 2026

Sepuluh Nopember Institute of Technology, Surabaya, Indonesia. GPA 3.62 [\[Transcript\]](#)

- Teaching Assistant for Database Systems (2024), Database Management (2025), Framework Programming (2025 & 2026), Backend Fundamental (2025), and Agile Methodology (2025).
- Thesis: Software Reengineering of The Tora Application Optimization Module.
Reengineered the optimization module of TORA, an Operations Research desktop application for solving the Transportation Problem. Implemented and integrated three optimization algorithms such as: Stepping Stone, MODI, and Iterated Inside-Out (IIO) using C++ and Qt 6, with IBFS results as the input for optimization.

WORK EXPERIENCE

Software Engineer Internship

PT. HM Sampoerna Tbk. May 2026 – present

- Designed and developed backend features from Product Requirement Documents (PRDs) using PHP, Laravel, MySQL, and REST APIs, including database migrations, logging, and error handling.
- Collaborated with supervisors and stakeholders to translate business requirements into technical solutions throughout the feature development lifecycle.
- Contributed to an AWS Lambda function by implementing error-handling improvements to support more reliable backend processing.
- Worked closely with frontend engineers and QA teams to integrate APIs, validate feature functionality, investigate defects, and ensure acceptance criteria were met.
- Built mobile automation tests using Appium, WebdriverIO, and TypeScript, contributing to regression testing and application quality assurance.

Software Engineer Internship

PRODES ITS April 2025 – September 2025

- Developed and maintained a web-based tryout platform used by 200+ registered participants
- Reduced evaluator review time from ~30 minutes to ~15-20 minutes per participant, improving efficiency by ~33-50%.
- Design and implemented backend services using Laravel, including database schema, controllers, and routing.
- Identified and fixed issues related to image data persistence to improve system reliability.
- Iterated features based on user feedback to improve platform usability and stability.

Software Automation Engineer

PT. Unggul Indah Jaya

Contract

August 2025

- Built a Playwright-based web automation system to automatically populate website forms using CSV files exported from Excel.
- Automated multi-step browser workflows, achieving ~99% successful execution rate across real usage.
- Reduced repetitive manual data-entry workload by ~60-80%.
- Implemented CSV parsing and validation to minimize input errors and retries.

PROJECTS

Mobile App Developer (Event Management)

EventKita App

[Github](#)

- Implemented Clean Architecture by separating logic into Domain, Data, and Presentation layers to ensure the feature was scalable and maintainable.
- Developed the end-to-end flow for event creators, from inputting details like title, date, and location to viewing the published event card.
- Ensured high code quality and reliability by designing a system that allows for independent unit testing of business logic, separate from the UI.

E-Commerce Website

Middle Test Project for Framework Programming Course 2024

[Github](#)

- Designed and implemented the database model, along with controllers to perform CRUD operations.
- Developed various frontend features, including an out-of-stock hover card, listing filters, and small enhancements such as wishlist and add-to-cart functionalities.

Employee Leave Management Website

Final Project for Framework Programming Course 2024

[Github](#)

- Designed and integrated the Service and User models.
- Implemented user authentication using JWT and developed middleware for access control.
- Created handlers to perform CRUD operations on the database.
- Integrated the database with the web application and developed multiple API endpoints.
- Developed various frontend components and pages for the User model.

ORGANIZATION AND VOLUNTEERING EXPERIENCE

Lead of the Organizing Committee Subdivision

Committee

Schematics NPC ITS 2024

February 2024 – November 2024

- Responsible for preparing the implementation of the technical part, namely the server and online-judge for the contest.
- Responsible for preparing the implementation of non-technical parts, like discord server and event organizer.
- Responsible for ensuring that the server and online judge are truly suitable for use in the contest and ensuring that the execution of the Schematics NPC event sequence runs smoothly.

Staff of the IT/TE Division Committee

Committee

STUDEEDS

March 2024

- Responsible for developing the homepage of the Stuededs website. Committee March 2024
- Tasked with creating CRUD (Create, Read, Update, Delete) functionality for articles.
- Responsible for designing and connecting the database with the website.

SKILLS

Programming Language: PHP, Go, TypeScript, JavaScript, Python, C, C++, Dart

Frameworks & Tools: Laravel, Playwright, Flutter, Next.js, Tailwind CSS, Bootstrap

Database: MySQL, PostgreSQL, Firebase

Tools: Git, Bitbucket, Insomnia, DBeaver

Deployment: Linux, NGINX