SAI ZAYAR HEIN

Education

King Mongkut's University of Technology Thonburi

Expected Graduation: Jul 2028

Bachelor of Science in Computer Science

Bangkok, Thailand

• Courses: Software Engineering, Operating Systems, Computer Architecture, Intro to Programming, Algorithms and Data Structures, Object-Oriented Concept, Calculus, Linear Algebra

Work Experience

Freelance Jul 2025 – Present

Full Stack Engineer

- Engineered secure multi-location medical facility management system supporting 15+ interconnected database entities with attribute-based access control scalable to unlimited clinic/pharmacy branches
- Delivered streamlined healthcare inventory and financial operations by enabling real-time tracking of 9 medicine types, automated invoicing, and multi-method expense categorization via ExcelJS bulk imports/exports
- Developed a production ready Point of Sale user interface, featuring full CRUD operations, ABAC, and PDF invoice generation

Contributing Developer

May 2025 - Jul 2025

Backend Engineer

• Designed **5 API endpoints** for the **CS First Date** (Freshers' Welcome) event, retrieving student and user data to display on the frontend website, **serving 60+ students**

Projects

Medical Clinic Point of Sale System | Website | Frontend | Backend | React | Express | PostgreSQL | TypeScript

- Developed a **full-stack healthcare Point-of-Sale** and management system that **enhanced operational efficiency** for **medical clinics and pharmacies** by implementing **attribute-based access control (ABAC)**, inventory tracking across multiple unit types, patient records and treatment documentation, dynamic invoicing and expense tracking, and financial reporting
- Utilized PostgreSQL for data storage, Express for a RESTful API backend, and React for the user interface

Zen Plan | Website | Source Code

React | Hono | PostgreSQL | TypeScript

- Built a full-stack wellness app using React, TypeScript, and MySQL with JWT authentication and RESTful API, enabling users to track daily health activities across 4 wellness categories
- Developed a responsive calendar-based task manager with CRUD operations using Prisma ORM and Hono framework, allowing users to organize and monitor their daily wellness routines

Expense Tracker | Back End

Express | PostgreSQL

• Engineered a backend system to track my spending, effectively helping me manage finances and reduce overspending by 20%, utilizing PostgresSQL for the database, and a Express backend

Leadership

SIT Hackathon Jun 2025

• Led a three-member team to complete a **Paradox themed**, **AI-integrated project** within **28 hours**, designing the system architecture, database, and flow, selecting **Shadon** as the frontend UI library, and integrating **Gemini** and **Replicate** models for prompt and image generation

Technical Skills

Languages: Java, SQL, HTML5, CSS, JavaScript, TypeScript

Developer Tools: AWS, Postman, Git, Docker

Libraries/Frameworks: React, Shadon, Tailwind, PostgreSQL, SQLite, MySQL, Prisma, Express, Hono, NodeJS