

Daniel Hwang

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<https://dhwang.dev>

PROJECTS

EatWhat.ai - AI-Powered Platform | Go, TypeScript, PostgreSQL, OpenAI Integration

Mar 2025 – Present

- Designed and built an **AI-driven** meal recommendation web application leveraging user mood, time, location, and historical feedback to personalize suggestions.
- Developed a custom **MCP-style (Model Context Protocol)** architecture utilizing **OpenAI GPT's Tool Use** and **Function Calling** features to dynamically invoke functions for retrieving and integrating past user interactions.
- Built a scalable backend using **Go** and the **Gin** framework, mapping PostgreSQL database with **GORM** to manage dynamic user data and support on-demand recommendations.
- Optimized prompt design and OpenAI API usage to **minimize token consumption** and **reduce API latency**, improving system responsiveness and cost-efficiency.
- Designed backend architecture using **anonymous UUIDs** for user tracking, prioritizing user experience and privacy by eliminating traditional authentication.
- Live:** dhwang.dev/eatwhat-ai

Faithbook - Full-Stack Social Media Web App | React, JavaScript, Node.js, PostgreSQL

Jan 2025 – Present

- Developed a full-stack social networking platform with user authentication, posting, commenting, and profile customization.
- Built the backend with **Node.js** (Express) and designed the PostgreSQL database schema using **Sequelize ORM**, integrating **JWT-based** authentication and secure password hashing.
- Implemented a **Bible verse search** feature utilizing **database indexing** and **client-side caching** to minimize server load and enhance user experience.
- Integrated **AWS S3** for secure and scalable image storage.
- Deployed** backend via Railway for stable and scalable hosting.
- Live:** faithbook.site

iPhone Clone / YouTube App | React, JavaScript, CSS, REST API

Jun 2024 – Sep 2024

- Built an interactive **iPhone UI clone** featuring functional apps like **Calculator**, **Weather**, and a **YouTube clone**.
- Utilized **state management** and **component-based** architecture to optimize performance and maintainability.
- Integrated **YouTube Data API** to enable real-time video search, comments, and categorized browsing across most popular, gaming, and music sections.
- Integrated **Weather API** (via RapidAPI) to deliver real-time weather information
- Live:** dhwang.dev/iphone-clone

EDUCATION

University of Waterloo | Bachelor of Arts

Jun 2023

- Completed fundamental CS courses: **Elementary Algorithm Design and Data Abstraction**, **Designing Functional Program**, Introduction to Computer Science
- Recipient of **University of Waterloo President's Scholarship**

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Go (Golang), Python, C

Technologies: React, Node.js, Express.js, Gin, GORM, PostgreSQL, Sequelize, AWS S3, REST API, Git