ETHAN DAI

Arden Hills, MN | dai00171@umn.edu | github.com/ethanda1

EDUCATION

University of Minnesota - Twin Cities — Minneapolis, MN
Bachelor of Science (B.S.) Computer Science — Sep 2022 - May 2026
Coursework: Data Structures and Algorithms, Machine Architecture and Organization, Discrete Math, Advanced Programming Principles, Computational Linear Algebra

EXPERIENCE

Software Developer Intern — Remote
Thaddeus Resource Center — Sep 2024 - Present

- Engineered a Node.js/Express backend API with PostgreSQL integration, resulting in 20% faster load times and improved application scalability through migration from client-side storage to backend side
- Working closely with UI/UX designers to revamp mobile application's interface using React Native and TypeScript, implementing responsive design patterns and modern UI components
- Participating in Scrum project planning meetings, contributing to discussions on app design, setting milestones, and shaping the overall project strategy in alignment with Agile principles.
- Maintained code quality through Git version control best practices, managing feature branches and conducting thorough code reviews

Fulfillment Team Member — Roseville, MN
Target — June 2023 - Aug 2023

- Efficiently picked, bagged, and stored online orders, meeting daily fulfillment goals.
- Assisted customers with their needs, ensuring clear and effective communication.

PROJECTS

KiwiNote | *Next.js, Supabase, LangChain, Node.js, Express.js, Docker* — github.com/ethanda1/KiwiNote

- Developed an LLM powered note-taking web application using that allows users to record audio, transcribe it, and generate notes.
- Implemented Supabase for database management and user authentication, ensuring secure access and data storage.
- Utilized Next.js for efficient routing and React for building a responsive user interface.
- Integrated WhisperAPI and LangChain OpenAI GPT-4o integration for transcription of audio and intelligent note generation, providing users with notes based on transcriptions.
- Containerized the backend with Docker, hosting it on an AWS EC2 instance and deployed frontend on GitHub Pages.

RateMyUMNDorm | *Python, Flask, PostgreSQL, Tailwind,* — github.com/ethanda1/rateumndorms

- Developed a full-stack web application enabling students to review, rate, and explore dormitories at the University of Minnesota.
- Implemented user authentication with secure password hashing using Flask-Login and Flask-Bcrypt, enabling secure registration, login, and logout features.
- Utilized SQLAlchemy ORM to interact with a PostgreSQL database, creating and managing user and review data efficiently.
- Deployed on Heroku with a PostgreSQL database, successfully serving over 500 users, facilitating the hosting of 30+ detailed dormitory reviews.

TuneSwipe | *React, Express.js, Node.js, Tailwind* — github.com/ethanda1/tuneswipe

- Developed a music discovery web application inspired by Tinder, allowing users to swipe through songs and personalize their song feed.
- Built and deployed a RESTful API backend using Node.js, Express.js, and Axios to handle API requests.
- Implemented a swipe-based UI using React, allowing users to like or skip songs with Tinder-like gestures
- Utilized Postman for API testing, ensuring efficient and reliable data operations.
- Integrated GPT-4o AI model using OpenAI API to generate a song feed based on user prompts.

SKILLS

Languages: Python, JavaScript, TypeScript, HTML/CSS, Java, C, C++, Assembly, OCaml
Frameworks and Libraries: React, React Native, Node.js, Express.js, Flask, Next.js, Langchain, SQLAlchemy, Supabase
Tools and Technologies: Git, GitHub, AWS EC2, Docker, Tailwind CSS, Postman, Visual Studio Code