Hayden Thai

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Education

San Diego State University

Bachelor of Science in Computer Engineering

EXPERIENCE

Software Development Engineer Intern

Amazon

- Led the development of the draft automation, resulting in a 90% reduction in user interactions, saving tens of thousands of clicks annually and enabling users to focus on high-judgment decisions.
- Designed and implemented two tables in the **Cloudscape React** library to streamline Amazon Fresh store operations.
- Developed and tested 8 **GraphQL** CRUD APIs which interfaced a **Springboot API** running in a **Docker** container that connects to a **DynamoDB** table, improving data access and manipulation capabilities.
- Collaborated closely with cross-functional team members, enhancing version control proficiency and Git expertise.
- Demonstrated expertise in **TypeScript**, leading the initiative to transition a 100% **JavaScript** codebase to **TypeScript**, ensuring safer code, fewer runtime errors, and better maintainability.
- Participated in org-wide Large Language Model hackathon, where my team built a web app on top of internal Amazon models to allow Amazonian's to paste internal documents/code to get ChatGPT-like responses to enhance productivity.

Software Development Engineer Intern

Amazon

- Led development to rewrite the sourcing grid as a **micro-frontend**, the sourcing grid presents metrics about different vendors to help vendor managers choose the best vendors for Amazon.
- Set up cloud infrastructure in AWS using AWS CDK, and created the UI using React Typescript
- Optimized performance by eliminating **Redux** and instead implementing **React Context**, resulting in faster page load.
- Improved the look and feel of the website by transitioning from the **AntD** component library to **Cloudscape**, giving the website a more "Amazonian" feel.
- Automated the development process by setting up different stages through **CDK Pipelines**.

Projects

SDSU Engineering GPT Assistant | NextJS, Typescript, PostgreSQL, Langchain

- Developed a dynamic query system that facilitates real-time user inquiries about SDSU's computer/electrical engineering department and related courses.
- Integrated **Next.js**, **Vercel AI SDK**, and **OpenAI**'s embedding API for efficient query handling and context-aware responses.
- Processed PDFs into chunks stored in a **3D vector database** in **Supabase**, enabling rapid data retrieval.
- Used LangChain to match user queries to relevant database chunks, which are sent as embeddings to the GPT API.

Healthtrack | AWS, Typescript, React, Git

- Led 7 students to develop a healthcare app tailored for a rural clinic's needs.
- Delivered features including Electronic Patient Record, Physician Scheduler, Lab/Pharmacy Order Tracking, Insurance Billing, and Equipment Inventory.
- Utilized technologies: Git, React, Typescript, AWS Amplify, Cognito, Cloudfront, S3, DynamoDB, and AppSync.
- Managed both the development and coordination of engineering tasks among team members.

TECHNICAL SKILLS

Languages: HTML, CSS, Javascript, TypeScript, C, C++, SQL, Java, Python, Matlab, SQL/PostgreSQL Frameworks: React, NextJS, Flask, ExpressJS, NodeJS, GraphQL, Django Developer Tools: Cloudformation Templates, AWS CDK, Postman, Linux/Unix, Git, AWS, Docker, Visual Studio Code, IntelliJ, Data Structures and Algorithms

Aug. 2019 – May 2024

San Diego, CA

Seattle, WA

May 2022 – Aug 2022

Seattle, WA

May 2023 – Aug 2023