


Sean Song

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SKILLS

Programming Languages: Python, TypeScript, JavaScript, C, C++, Bash, Batch

Framework/Libraries: React, React Native, NextJS, TailwindCSS, Shadcn/ui, Pandas, Matplotlib, Expo, Django

Data Tools: Git, Realm, MongoDB, Linux, Windows API, Notion API, ChatGPT API, Cohere API

EDUCATION

University of Waterloo

Bachelor of Honours Mathematics

- Cumulative GPA: 3.6/4.0
- **Certified Investment Manager, Korea** (2024)

September 2023 - December 2026

Waterloo, ON, Canada

WORK EXPERIENCE

IT Support Intern

DS Investment & Securities

May 2024 – October 2024

Seoul, South Korea

- Developed and optimized an OTC market treasury bond trading program in C with a custom Windows API GUI, automating trade processes by extracting bond spread data from Excel and achieving a **90% reduction** in processing time (from 20ms to **2ms** per message) to enhance trading efficiency and response times.
- Analyzed bond and futures data with **Pandas**, integrating **Windows API** and **Matplotlib** to build a GUI that visualizes real-time market trends.
- Automated company-wide IT security vulnerability inspections using a Batch script for 200 employees, achieving an **80% reduction** in processing time and improving overall IT compliance.
- Handled routine IT maintenance, hardware setups, troubleshooting, and daily technical requests from coworkers across departments, ensuring smooth operation and dependable support for front-office.

PROJECTS

Customizable Notion Blog

NextJS, React, Typescript, Notion API, TailwindCSS, Shadcn/ui

October 2024 - November 2024

- Developed a fully customizable personal blog using **NextJS** with **Notion** as a CMS, providing flexibility for dynamic content management.
- Optimized SEO (achieved **100 PageSpeed Insights score**) by automating metadata generation and enabling Incremental Static Regeneration for faster content updates, enhancing search visibility and site performance.
- Implemented dual database structure (articles and categories) to enable efficient blog updates, along with a UI button that triggers ISR, ensuring real-time content refresh.

IN:SIGHT | *Full-stack*

JavaScript, Python, Tailwind CSS, NextJS, Flask, mongoDB, Cloudinary, Cloudflare

March 2024

- Developed a document analysis platform that enables teachers and students to extract summaries and key insights from complex documents, enhancing study efficiency and comprehension.
- Built a responsive front end using **NextJS** and set up a **Flask** backend with **MongoDB** for robust data management and storage.
- Implemented secure file handling with **Cloudinary** for file uploads and URL encryption to MongoDB; integrated **ChatGPT API** for customized PDF analysis, enabling detailed content insights and personalized study aids.

WealthWiseWiki | *Front-end lead*

Django, Python, JavaScript, MongoDB, MATLAB

February 2024

- Achieved **1st place** at **NSBEHacks 2024**, developing a mobile-friendly web app that provides mentorship, financial literacy, and healthcare resources for Toronto's Black community.
- Built app views (dashboard, business navigator, AI receipt analyzer) using Django connected to a Python backend, enabling AI integration for automated receipt analysis, personalized recommendations, and real-time user support.
- Integrated chatbot features with **Cohere's API** and a custom dataset, and developed a purchase statement generator leveraging **ChatGPT API** and **Cohere API** for AI-powered assistance.