Han Le

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Experience

Full Stack Engineer (Part-time), Tesoract – Toronto, ON Apr 2023 – Present

- Designed an authorization gateway using JavaScript, Node.js and MongoDB that capable of handling 10,000 concurrent requests through stress testing with Grafana k6 to verify object-level permission
- Built a cloud file storage system with AWS S3 to store and stream large media file, optimizing data transfer by implementing batch request from individual request to improve transmission time by 30%
- Developed a headless CMS using Payload, Vite, Express, and MongoDB to separate digital content from codebase, saving 10 hours of modifying source code and 1 hour of build time weekly
- Integrated Jest into CI/CD pipeline, achieving 85% unit test coverage on initial integration, enhancing code review time, system stability, and development practices
- Optimized cross-browser compatibility for 8 front-end pages by refactoring and building reusable components

Software Developer (Part-time), York University SCS – Toronto, ON May 2022 – Apr 2023

- Developed a Python script to merge, normalize and export two databases into a classroom availability schedule in Excel, improving information accuracy and searching time for 20 active users daily
- Built an ETL pipeline to process data from QLess using Functions, SQL Database, and SQL Data Sync from Azure into an enterprise SQL Server database, assuring 100% data availability with local fallback
- Addressed cross-browser compatibility and accessibility issues of a browser-based kiosk app by refactoring all JavaScript front-end, increasing 40% in daily usage
- Mentored 5 interns by handling tools introduction, providing training and addressing questions

Programmer Assistant (Part-time), York University SCS – Toronto, ON May 2021 – Apr 2022

- Architected an infrastructure automation tool with Google Cloud SDK and Python to deploy virtual machines and auto-correct errors, reducing dedicated weekly workload by 90%
- Engineered a browser extension for internal tools using JavaScript and HTML5, enhancing user experience with quick shortcuts, selection tools and alerts, resulting in a 60% reduction in task completion time
- Built a web scraping script using Python and Selenium to automated input filling, creating 200+ permutations per day that spotlight 4 critical issues

Projects

Orches - Spotify playlist optimizer orches.hanle23.me

- Created a Spotify playlist optimizer web app using Next.js, TypeScript, and Tailwind CSS, deployed onto Vercel
- Implemented a server-side authorization wrapper with NextAuth and Spotify OAuth using JWT strategy, enhancing user experience by automatically refreshing access token to keep the session alive
- Developed a comparison algorithm using Euclidean distance to match a track with a playlist by calculating the distance from the nearest anchor in a normalized range

World Data Visualization github.com/hanle23/WorldBankVisualization

- Led a team of 4 to deliver a desktop app for a capstone project with Java, Maven, and World Bank APIs
- Architected a Model-View-Controller pattern for the core features of the app, with JUnit tests for unit and integration testing to achieve 92% test coverage

Skills

Languages: Python, Java, JavaScript, TypeScript, SQL
Technologies: Next.js, Node.js, Tailwind CSS, Docker, Jest, Vite.js, Express.js, AWS, Microsoft Azure, GCP
Databases: MongoDB, Microsoft SQL Server, MySQL

Education

Lassonde School of Engineering - York University – Bachelor of Science in Computer Science May 2023