Mason Leitch

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Education

University of the Fraser Valley

Bachelor of Science, Computing Science (GPA 3.63)

Abbotsford, BC January, 2024

Experience

Software Developer (Contract) Modulo Software Inc. - Chilliwack, B.C.

June 2024 - Present

- Architected an full-stack Django web application allowing engineers to specify structural parameters, generating AutoCAD-compatible blueprints, reducing drafting time to minutes
- Developed a Python CAD analysis tool to automate structural support detection/tributary area calculations in architectural plans, reducing manual review time and improving load-calculation accuracy for engineering teams.
- Modernized legacy drafting tool by refactoring monolithic code into modular, scalable components using OOP principles
- Designed and deployed 36 PHP-based structural engineering calculators for load analysis/design compliance

Projects

MapleStory Tools Project (Link)

GitHub

- Architected a React/TypeScript platform hosting several game tools to 10k+ monthly active users, implementing Next.js SSR and AWS CloudFront-optimized asset delivery to achieve fast load times for thousands of images globally
- Developed automated data mining solution and ETL pipeline in C# and Python to track 1000+ in-game shop items, powering a database to allow users to track upcoming and past sales
- Engineered high-performance Next.js frontend with server-side rendering and CloudFront-optimized asset delivery for 1k+ items fetched via REST API, reducing load times
- Scaled infrastructure using AWS DynamoDB, S3, Lambda, and API Gateway to handle growing database and content delivery needs for a global audience
- Implemented responsive design with Tailwind CSS and established TypeScript practices for improved maintainability

Military Contracting Event Management Website (Link)

GitHub

- Architected and deployed a full-stack web application using Next.js, React, and TypeScript, implementing complex features including dynamic routing, authentication systems, and interactive components
- Integrated AWS CloudFront CDN for optimized image and content delivery, ensuring fast global access and reducing server load through edge caching
- Designed and implemented a scalable data architecture using centralized TypeScript interfaces and React context providers, enabling efficient management of 35+ component types and 50+ pages
- Developed responsive and accessible UI components using Tailwind CSS, ensuring consistent design and optimal user experience across all device types
- Implemented advanced React patterns including custom hooks, context providers, and compound components to manage complex state and user interactions

Skills & Interests

Languages: TypeScript, JavaScript; Python; PHP;

Cloud/Infrastructure: AWS (DynamoDB, S3, Lambda, CloudFront)

Libraries: React; Next.js; Django; Laravel

Tools: Git, Neovim