

Mason Leitch

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Experience

Software Developer (Contract) Modulo Software Inc. – Chilliwack, B.C. June 2024 – Present

- Architected and delivered 36 **PHP**-based structural engineering calculators, improving accuracy for engineering teams
- Built an intuitive **Django**-powered web interface allowing engineers to specify structural parameters, generating AutoCAD-compatible blueprints, reducing drafting time to minutes
- Developed a parametric drawing engine that automatically generates DXF files with proper layers, dimensions, and annotations based on user inputs
- Restructured legacy drafting tool using object-oriented principles, resulting in 40% reduction in code duplication
- Developed a Python-based CAD analysis tool that automatically detects structural relationships and tributary areas in building plans, streamlining engineering workflow through automated plan analysis

Projects

MapleStory Tools Project ([Link](#)) [GitHub](#)

- Architected and launched a comprehensive React-based platform hosting multiple MapleStory game tools and utilities, serving 10,000+ monthly active users
- Built an advanced skill calculator supporting all 50 game classes and 500+ skills, providing real-time cost calculation and progress tracking using in-game metrics
- 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
- Built high-performance **React/Next.js** frontend achieving sub-800ms load times for 1000+ items globally, with detailed information in an advanced user interface
- Scaled infrastructure using **AWS DynamoDB, S3, CloudFront, 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 13, 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; C#;

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

Libraries: React; Next.js; Django; Laravel

Tools: Git, AutoCAD

Personal Interests: philosophy; weightlifting; politics; strategy games; piano

Education

University of the Fraser Valley
Bachelor of Science, Computing Science

Abbotsford, BC
January, 2024

- GPA 3.63