

Mason Leitch

nosamleitch@gmail.com | masonleitch.dev | github.com/masonym
(778) 347-8142 | Surrey, B.C.

Education

University of the Fraser Valley

Bachelor of Science, Computing Science

Abbotsford, BC

January 2024

- GPA 3.63

Projects

MapleStory Tools Project ([Link](#))

[GitHub](#)

- Developed a scalable, **React**-based web application serving as a repository for various tools for an online game, designed with modular architecture to easily accommodate future game-related calculators and utilities.
- Created a comprehensive calculator that dynamically generates inputs for all 50 MapleStory classes and over 500 unique skills, which calculates upgrade costs, and provides visual progress tracking.
- Implemented responsive design using **Tailwind CSS**, ensuring seamless functionality across all device types.
- Optimized website performance through lazy loading, server-side rendering, and efficient state management, resulting in faster load times and improved user experience.
- Established a modular component structure and utilized **TypeScript** to enhance code readability, reduce bugs, and improve overall project maintainability.

MapleStory Cash Shop Upcoming Sales Viewer ([Link](#))

[GitHub](#)

- Designed and implemented a data mining solution to extract upcoming sale data from an online game, aiding players in tracking and cataloguing over 500 future and past in-game shop items.
- Developed a **Python** program to extract relevant sales information, generating an object for API deployment.
- Built a **React** application to display API data, with a toggle for simplified and advanced views, loading over 500 items and images at a time in under 800ms on average, globally.
- Scaled the project by migrating from Cloudflare KV workers to a NoSQL **AWS DynamoDB** for storing thousands of items and images, utilizing **AWS S3 buckets** for image storage and **AWS CloudFront** for content delivery.
- Implemented **AWS Lambda** and **AWS API Gateway**, providing a robust and scalable **REST API** solution.
- Achieved a user base of **10,000 unique monthly visitors** through word of mouth and social media promotion, delivering reliable data to a global audience.

Military Contracting Event Management Website ([Link](#))

[GitHub](#)

- Engineered a responsive event management website using **Next.js** and **React**, enhancing user engagement through dynamic routing and interactive components.
- Leveraged **Next.js** dynamic routes and slug-based URLs, integrating centralized data files to generate SEO-friendly pages on-demand, resulting in scalable content management and improved site performance.
- Implemented a secure authentication system for speaker presentations, bolstering data protection with password-protected access and efficient local storage management.
- Utilized modern **React** hooks and state management techniques, resulting in cleaner, more maintainable code and improved component reusability.

Skills & Interests

Languages: Java; Python; C; JavaScript; TypeScript; SQL

Developer Tools: Git; Unix; Jupyter Notebooks; Postman

Libraries/Frameworks: React; Next.js; Tailwind CSS; pandas; NumPy; scikit-learn; BeautifulSoup; Selenium

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