

Alexander Shen

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EDUCATION

University of Waterloo

Sep 2022 - Apr 2027

Bachelor of Computer Science (Co-op)

GPA: 3.78

Courses: Logic and Computation, Object-Oriented Software Development.

TECHNICAL SKILLS

Languages: JavaScript, Python, C++, Java, C, PHP, SQL, TypeScript, HTML/CSS, RegEx

Frameworks: React, Node.js, Bootstrap, jQuery, Symfony

Developer Tools/Libraries: MongoDB, Firebase, Amazon Web Services, Docker, Bash, Git, Vim

EXPERIENCE

Full Stack Developer

Jan 2024 - Present

Polaris Intelligence

Toronto, Ontario

- Refactored frontend modal logic to enhance code maintainability and flexibility by restructuring modal calls and stylings following **SOLID principles and OOP concepts**.
- Optimized automated test script performance by **80%** through the implementation of **parallel execution utilizing multithreading** with **Python and Selenium** in order to **improve test coverage and reduce manual testing efforts**.
- Developed and optimized a postal code to address web scraping script featuring **parallel execution, fuzzy searching, and address matching algorithms**, in order to **streamline postal code validation within business data and improve overall data quality**.
- Applied **jQuery best practices** to refactor legacy code and **improve frontend performance and scalability of code**.

QA Analyst

May 2023 - Aug 2023

JANA Corporation

Aurora, Ontario

- Automated **40% of regression test cases** by creating **Selenium and Java** automation scripts, resulting in a **significant reduction in manual testing efforts**.
- Documented **over 100 bugs** using **JIRA, TestRail and the AGILE methodology**, enhancing the **software's reliability** and user experience.
- Addressed **authentication challenges regarding 2FA OAuth** by incorporating **cookie-caching methods, streamlining the automation workflow** to work with minimal manual intervention.

Full Stack Developer

Jun 2022 - Aug 2022

Ministry of Health

Toronto, Ontario

- Automated processing of budget requests** by creating a frontend-to-backend data processing pipeline using **React, Express, Node.js, MongoDB, and REST API**, improving **data entry speed by 75%** for users.
- Learned about the **CI/CD Pipeline, OOP principles, monolithic repositories, and Azure DevOps** for project planning and version control while working with developers and business executives.

PROJECTS

GI Deck Builder Website | *JavaScript, MongoDB, Express, Node.js, React, Firebase*

- Built a web app that acts as a deck manager for users, allowing them to build new decks, download current decks and share it with others using the **MERN stack (MongoDB, Express, Node.js, React)** with a **React, Bootstrap and Redux** frontend for global state management and responsive UI.
- Used **Python and BeautifulSoup** to scrape **100+ card images** and data from websites and Google Sheets, which were stored using **MongoDB and Cloud Storage with Firebase**.

Notion-YouTube Music Player | *Python, Bash, AppleScript*

- Made a set of Python scripts that imitates a music player app utilizing the **YouTube Data API and Notion API**, using YouTube to play songs and Notion to store song data.
- Created a minimalist UI using Keyboard Maestro to map keyboard shortcuts to **Bash commands** and run relevant Python scripts.