Lawrence Matsuoka

1-902-401-0820 | LawrenceMatsuoka@gmail.com | linkedin.com/in/lawrence-matsuoka | github.com/lawrence-matsuoka

Education

Dalhousie University — Halifax, NS

Bachelor of Science in Mathematics, Minor in Business — *Expected Oct 2025*

- **Relevant Coursework**: Applied Graph Theory, Cryptography, Discrete Math, Java, Linear Algebra, Python

Experience

Data Engineer Intern — May 2022 – Dec 2022

HyperSpark AI — *Remote*

- Documented a Git workflow guide to standardize version control practices and reduce potential merge conflicts
- Configured Dockerfiles to containerize dependencies, development environments, and consistent deployment
- Assisted in maintaining Kubernetes YAML configuration files to automate deployments in a DevOps pipeline
- Collaborated cross-functionally with data scientists and the development team to design databases schemas

Data Analyst Intern — May 2021 – Apr 2022

DevScript Inc. — *Halifax, NS*

- Estimated a total addressable market of $1.5B by modelling financial data from banks/government organizations, and extrapolating findings through data collection and analysis
- Applied linear regression in a Jupyter Notebook to fill gaps in market data and improve accuracy of market sizing
- Crafted a D3.js visualization in Observable to map the interconnectedness between lending institutions
- Mentored new interns in Agile workflows and project onboarding to improve team integration and productivity
- Engineered an automated financial model template with variable financial line items based on NAICS code

Research Analyst Intern — Sep 2020 – Apr 2021

DevScript Inc. — *Halifax, NS*

- Mapped 20,000+ metrics and APIs in a relational database to design a data lake for machine learning applications
- Evaluated databases, tables, reports and economic factors from government resources to validate the market
- Authored a written report on business value by assembling and referencing 327 peer-reviewed articles
- Collaborated with management on employee onboarding processes and defining project management story points

Business Analyst — Jan 2020 – Apr 2020

Canadian College of Acupuncture & Traditional Chinese Medicine — *Halifax, NS*

- Lessened the price of an acquisition by 38% through Discounted Cash Flow and Comparable Company analysis
- Optimized Excel attendance sheet with INDEX/MATCH functions to ensure reliable data accuracy
- Provided timely support to students and faculty, resolving administrative requests and enhancing college experience

Technical Skills

Languages: C/C++, Python, Bash, Java, JavaScript, R, SQL, Lua, LaTeX
Frameworks & Libraries: NumPy, Pandas, Matplotlib, Check, OpenGL, SFML, NetworkX, D3.js
Tools: Linux, Git, Vim, VSCode, Eclipse IDE, Jupyter Notebooks, Docker, Kubernetes, MS Office, Airtable

Projects

XYZ to Input (XtI) | *C, Lua, Python, Bash, Makefile* — github.com/NJeffRob/XtI

- Developed a command-line tool in C that integrates Lua via its C API to handle input arguments and execution flow, automating file transformations for computational chemistry workflows
- Wrote unit and integration tests using the Check framework to verify core functions and sample input test cases
- Created a Makefile that automates the build, compilation, and testing workflows to improve development speed
- Automated the generation of boilerplate unit test code and Makefile updates with a Python script
- Utilized a Bash script to automate installation and streamline shell integration on Linux and MacOS

HexFML | *C++, SFML, Networking* — github.com/lawrence-matsuoka/hexfml

- Recreated the board game Hex for local and online play using C++ and the SFML graphical library
- Built P2P networking using TCP sockets to enable real-time multiplayer functionality via port forwarding
- Designed and implemented game logic, move validation, turn sequencing, and efficient win detection with a Depth-First Search (DFS) graph traversal algorithm