

EDUCATION

University of Waterloo

Bachelor's of Applied Science, Honours Computer Engineering

Waterloo, Ontario

2018–Present

- Achieved a grade of **97%** (22 above average) in **Concurrency & Systems Programming**

EXPERIENCE

Enso Connect

Toronto, Ontario

Lead Developer

Nov 2020–May 2021

- Led the development from conception to production of an automation test suite and **production pipeline**, effectively managing a team of 3 people working remotely around the world in pressurized startup environment
- Created testing framework to encapsulate entire web-app functionality, with **Puppeteer** driven tests
- Found and debugged hundreds of bugs / played a large role in refactoring backend for agnostic and **test-driven dev**
- Led integration of 2000+ VRBO properties into Enso Connect property management/ communications platforms
- Took on large independent back-end projects and integrations in **Serverles, NoSQL, AWS** stack whilst managing team

TradeLogiq

Toronto, Ontario

Software Engineer Contract

Jan 2021–May 2021

- Independently developed a comprehensive testing server complementary to our large-scale feed handler processing real-time trading data, with **multiple threads** utilizing **UDP** and **TCP** protocols
- Optimized retransmission request algorithm for missing data sequences, speeding up feed handler latency exponentially from minutes to seconds
- Conceptualized and created an internal cloud-monitoring full stack application. Collected data and video recorded the status of internal servers using ILO APIs and **Puppeteer**. Upon critical server errors, mass email/Slack messages are sent allowing the company to save thousands being able to react to server/network failures immediately
- Created **Vue.JS** frontend to display both up-to-date and historical server statuses, updated periodically

TD Bank

Toronto, Ontario

Software Engineer

May 2020–Sep 2021

- Enhanced performance of existing **ETL** processes and **SQL** queries for reporting and analytic purposes using **SQL server** relational databases
- Experienced in analyzing anomalies in tables and statistical reports to debug faulty streamlines in stored SQL procedures
- Initiated building and optimization of **big data** pipelines for structured and unstructured data in analytical models
- Automated **C#** and **Python** scripts to preprocess, load and transform data in **ETLs**

Sky View Suites

Toronto, Ontario

Lead Software Developer

September 2019–January 2020

- Created over **50%** of **PHP Laravel** web app resulting in the automation of numerous business processes such as accounting, statistical reporting, and client management, in addition to working on **Vue.js PWA** and **Python** project
- Constructed dynamic user interfaces, creatively displaying **API** data
- Proposed and facilitated the implementation of enterprise engineering solutions like **CI** with **Jenkins** builds and unit tests
- Communicated technically complex issues to partners, understanding business implications of software solutions in daily meetings and documentation

Ford Motor Co.

Waterloo, Ontario

Full-Stack Developer

January 2019–May 2019

- Developed web-application in **Java**; interfaced **REST APIs** in **Spring/MVC** framework to provide diagnostic insights
- Strived in fast-paced **Agile** (scrum) workflow; skilled with **Git** version control
- Designed and implemented **UI** using **HTML, CSS, JavaScript** and associated frameworks **JQuery, Knockout, Require.js**
- Acquired a proficiency using **SQL Server** and **jOOQ** Object Oriented Querying, as well as modifying patch scripts

LANGUAGES

- **Python:** 5 years of experience
- **C/C++:** 4 years of experience
- **Java:** 3-4 years of experience
- **SQL:** 3-4 years of experience
- **NoSQL:** 1-2 years of experience
- **JavaScript:** 2-3 years of experience
- **PHP:** 1-2 years of experience

FRAMEWORKS

- **Flask/Django:** 4 years of experience
- **Laravel:** 2 years of experience
- **Spring Boot:** 1 year of experience
- **Vue.js:** 1 year of experience
- **React:** 2 year of experience
- **Angular:** 1 year of experience
- **.NET:** 1 year of experience

PROJECTS

- **AI Real Estate Evaluation:** Python / TensorFlow / Puppeteer / Google Cloud
 - Created **Puppeteer** web scraper to collect over **100,000** rows of real estate and geolocation data in **Postgres DB**
 - Optimized backend location queries, and cluster dedensification algorithms using geometric analysis
 - Creatively constructed a mathematical model to simulate the logarithm relation of price to location for properties with similar features
 - Coordinated with frontend engineers to dynamically display and serve prediction pricing model for any property type
- **Path Finding Visualization:** JavaScript / Flask / Python
 - Utilized **heuristic** guided modified Dijkstra's algorithm to find shortest airplane route from any airport in the world
 - Creatively visualized resource intensive **JavaScript** animations to optimize performance with concurrent programming on **React** portfolio website
- **Real Time Operating System Testing Framework:** C / Socket Programming (ECE-350)
 - Devised testing framework for lowest level operating system. Writing over 4000 lines of modular C, tackled the task of testing the nondeterministic nature of the real time EDF scheduler we implemented, in addition to testing the thread creation and inter-thread communication and signaling
- **API Performance Evaluation GLI:** C / Socket Programming
 - Using multithreaded socket programming, this tool provides statistics about API performance including average response time, min/max bytes per packet, and I have used this for load testing purposes at Enso Connect

RECOMMENDATIONS

Luke McKim

Senior Developer | TradeLogiq

"Stefan's understanding of **concurrency** and socket-programming was impressive over the term. Above all his ability to continuously think in terms of optimizing resource **utilization** and **algorithmic latency** helped him strive in this position."

Francois Gouelo

CEO / Founder | Enso Connect

"Stefan's **interpersonal skills** created a **collaborative** environment of sharing of ideas" ... "His strong understanding of software fundamentals, convention, and **modern infrastructure** was demonstrated during his time at Enso."

EXTRACURRICULAR ACTIVITIES

- Varsity / Semi-Pro Soccer January 2020-COVID
Leadership, mental toughness and communication developed playing for the University and with North Mississauga League One, training 5-8 times a week playing against the best in Ontario
- Piano Performance January 2020-Current
Creativity and expressiveness developed through piano performance at the highest level achieve RCM level 10 certification
- Math / Programming Tutor / Swim Instructor January 2018-Current
Developed strong language skills being able to communicate technically complex in collaborative setting