## SIMON ZENG

#### **Software Developer**

@ simon.zeng@uwaterloo.ca

**613-983-9079** 

% s-zeng.github.io

in linkedin.com/in/s-zeng1

github.com/s-zeng

### **EXPERIENCE**

## Performance Engineering/Test Automation Co-op CENX

- Ottawa, Ontario
- Automated stress testing on company infrastructure using **Python**
- Developed custom TCP-interfacing implementations of IETF RFCs in Bash and Python to debug non standards-compliant network stacks
- Caught and reported multiple bugs and issues in **Clojure** code, leading to large performance increases and major security fixes

## Full Stack Web Development Intern

### inBay Technologies

## July 2016 - August 2016

- Kanata, Ontario
- Fetched and formatted statistics and metrics from network APIs using Ruby (on Rails) and Sinatra
- Constructed front-end web pages using HTML, CSS, and Coffeescript to present statistics to clients

## **PROJECTS**

# Neural Network Based Automatic MIDI Music Generator github.com/s-zeng/rag-shenanigann

- Scraped and preprocessed web MIDI files into neural network consumable text format with a suite of **Python** scripts
- Automated process of MIDI manipulation and neural network training using **Docker**

# Polynomial Interpolator github.com/s-zeng/interpoly

• Developed a small **Haskell** based CLI utility that generates minimum degree polynomials to interpolate over finite lists of numbers

# Discord API Music Player Bot github.com/s-zeng/Zengyatta

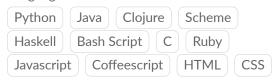
- Interfaced with the Discord REST API using **Java** to create a bot that plays music in voice channels
- Reverse engineered Bandcamp's web services to enable the use of Bandcamp links as a music source

### **SUMMARY**

- Professional experience in **Python**, **Clojure**, and web development
- Robust background in functional programming (i.e. Scheme, Haskell, Clojure)
- Strong interest in security, networks, and low level engineering
- Avid advocate for Linux, Vim, and open source

### SKILLS

#### Languages



#### Tools and Technologies

Linux (Arch)	Vim	Late	ex	Git	TCP
Ruby on Rails	Sina	tra	Docker		

## **AWARDS**



#### **ECOO CS Contest Finalist**

Lead high school computer science team to a 2nd place finish in Eastern Ontario



## Canadian Computing Contest Honour

Placed in top 50 out of almost 2000 contestants

## **EDUCATION**

# Honours Computer Science, Co-op University of Waterloo

September 2018 - May 2023 (expected)

Major Average: 91%