

SIMON ZENG

Software Developer

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EXPERIENCE

Performance Engineering/Test Automation Co-op

CENX

July 2017 – September 2017

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

- Fetches and formats 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

SKILLS

Languages

Python Java Clojure Scheme
Haskell Bash Script C Ruby
Javascript Coffeescript HTML CSS

Tools and Technologies

Linux (Arch) Vim Latex Git TCP
Ruby on Rails Sinatra Docker

AWARDS & CERTIFICATIONS

🏆 **ECOO CS Contest Finalist**
Lead high school computer science team to a 2nd place finish in Eastern Ontario

★ **Canadian Computing Contest Honour Roll**
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%