Wilson Sy

Toronto, Ontario | (647) 213 – 3565 | sy.wilson@proton.me | www.linkedin.com/in/wilson-sy

Skills

Programming
- Python (7 years)
  - Django, Flask
  - PyTorch, scikit-learn, pandas, numpy
- Java (4 years)
- C (4 years)
- PHP
- Kotlin
- Terraform / infrastructure-as-code
- Cross-platform UI (Qt)
- Bash / shell scripting
- Git (7+ years)
- MySQL
- Elasticsearch

Tools and Environments
- Google Cloud (Cloud Run, Apigee, CloudSQL)
- Docker
- Kubernetes, Marathon, Consul
- Grafana

Concepts
- Agile
- Lean Inception
- Clean Architecture, SOLID
- Property-based and unit testing
- Concurrent and parallel programming
- Real-time data visualization
- OOP and functional programming

Education

Honours Bachelor of Science, University of Toronto — St. George
Computer Science Major, Linguistics Major
Toronto, ON
Graduating 2025
3.80 cGPA
- ASIP stream for Computer Science
- Dean's List Scholar (2020 – 2023)
- Jack Chambers Undergraduate Scholarship in Linguistics (2023)

Research Experience

Designing an agent to play the cooperative card game Hanabi
CSC494 Project, supervised by Dr. Alice Gao and Dr. Jonathan Calver
Toronto, ON
Jan 2025 – Apr 2025
- Will optimize and complete documentation for HanaSim game and agent simulator written in C++ in preparation for public release
- Will review existing literature and implement a new agent based on dynamic logic and formal pragmatics to successfully cooperate with unknown agents

Building Automatic Speech Tools in Low-Resource Languages
Volunteer for JHI Scholars-in-Residence project, supervised by Dr. Ewan Dunbar
Toronto, ON
May 2023
- Set up a HMM pipeline to segment speech sounds for Faetar, an Indo-European language with fewer than 1000 native speakers
- Independently wrote a shell script to automatically display predicted alignments in Praat, reducing human effort to validate model correctness

Professional Experience

Kijiji
Backend Developer
Toronto, ON
May 2023 – Aug 2024
- Introduced 30 new vehicle data fields by restructuring databases and microservices across two independent systems, enhancing user search functionality and the quality of seller listings
- Wrote detailed technical tickets to implement a new listing promotion feature by adapting existing ElasticSearch and messaging architecture
- Proposed 2 architecture decision records which were accepted, improving system resilience to malformed data and establishing sources of truth for business-critical data
- Led weekly syncs by preparing topics from recent projects to promote knowledge sharing and innovation among all backend developers

thinkRF

Software Developer

Ottawa, ON (remote)
May – Sep 2022
and May – Sep 2021

- Independently researched and developed a Python 3 binding for a C API, including automated pytest suite and Sphinx documentation generator
- Met weekly with contractors to resolve 20+ bugs in their API, including issues such as memory leaks, disk space allocation, and stream buffering
- Developed a PySide6 GUI for Windows and Linux to visualize signal data captured in real-time using created Python API

Projects

- Ontario Parks guestbook app for Android, written in Kotlin and Python. CSC301 course project.
- Remote-control microwave using phone tones, using Arduino. Submitted at MakeUofT 2021.
- Collaborative filtering recommender using a MyAnimeList dataset to find shows for group watching. CSC111 course project.
- Python brain-computer interface software for the Emotiv Cortex 2 to perform simple computer tasks. Top 10 at Hack the Valley 2019.

Extracurriculars

University of Toronto Student Anime and Manga Association – President (2024 – now), Games Master (2023 – 2024), Lower Year Representative (2020 – 2022)
UT Language Exchange Initiative – Language Executive Coordinator (2021 – 2022)
Hart House Chess Club – Communications Coordinator (2021)