# SOPHIA KIM

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Portfolio | GitHub

#### TECHNICAL SKILLS

Languages: Java, C/C++, Python, TypeScript, JavaScript, HTML/CSS, SQL

**Frameworks**: Ansible, React, Node.js, JUnit, Mocha, Chai **Developer Tools** / **Environments**: Unix, Git, SVN, Firebase

### PROFESSIONAL EXPERIENCE

### **Full Stack Developer Co-op**

Sept 2022 - May 2023

Burnaby, BC

CGI

- Wrote Ansible playbooks independently and collaboratively with senior developers for configuration management, demoing to team leads and managers, and deployed scripts on Unix
- Impact: Improved maintenance of tech infrastructures across environments for future software deployments
- Analyzed code base of a web application to investigate the workflow from the user interface to the database, using SQL queries to see how data was being stored, and documenting the process with sequence and ER diagrams
- **Impact**: Improved productivity of the team in understanding how the cache invoke process interacted with CronJob to kickstart an upgrade to an internal framework
- · Reviewed and refactored code in Java, and wrote unit tests using JUnit and Mockito
- Impact: Improved quality of the user cache data by adding conditional paths to the invoke process

# **Research and Health Coordinator**

Nov 2018 - July 2021

Canada's National Ballet School

Toronto, ON

• Conducted a study for a digital arts-based health program across Ontario, finishing the pilot with a 79% retention rate, exceeding target research participants by 172%, and contributing to the manuscript for 2 publications

#### **PROJECTS**

### Music Sheet Domain Specific Language (DSL)

Jan - Feb 2024

Course Project

Vancouver, BC

- Built a DSL for generating sheet music, featuring creation, mutation, and repetition of notes, chords, and sequences
- Led the design of grammar rules by conducting user studies, iterating design of the language, implementing the feedback for each deliverable phase, and repeating this process to ensure an optimally intuitive language
- Leveraged ANTLR to implement grammar rules, JUnit for testing, and Java to convert tokens to AST objects

### Chrome Extension for Seeking Refuge in Canada (2nd Place)

Mar 5 – 6 2022

cmd-f hackathon 2022

Vancouver, BC

- Awarded: Silver Prize (2nd place), 2nd Place TELUS: Leverage technology to support social sustainability and community building sponsorship
- Created a chrome extension that streamlines resources for refugees, including Google Maps for available services
- Used Firebase to set up the database, and used React to handle user queries for data retrieval

#### Speech-to-Text App for Communication Assistance (Top 5 Finalist)

Feb 18 – 20 2022

StormHacks 2022

Vancouver, BC

- Awarded: Top 5 Finalist, Most Creative Use of Twilio
- Created Hearo, a speech-to-text app to assist communication
- Used React and JavaScript to implement WebSocket API to feed client data input for the speech-to-text feature

#### **EDUCATION**

## **University of British Columbia**

Vancouver, BC

Bachelor of Computer Science (BCS)

Sept 2021 - May 2024

• Courses taken: Advanced Software Engineering, Introduction to Computer Networking, Natural Language Processing, Introduction to Relational Databases

# **Western University**

London, ON

Master of Public Health (MPH)

Sept 2017 – Aug 2018

**University of Toronto** 

Toronto, ON

Bachelor of Arts, Honours with Distinction – Health Studies Specialist, Sociology Major

Sept 2013 - May 2017