

# SOPHIA KIM

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## TECHNICAL SKILLS

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

**Frameworks:** Ansible, React, Node.js, JUnit, Mocha, Chai

**Developer Tools / Environments:** Unix, Git, SVN, Firebase

**Libraries:** spaCy, scikit-learn, pandas, NumPy, Matplotlib

## PROFESSIONAL EXPERIENCE

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### Full Stack Developer Co-op Student

Sept 2022 – May 2023

CGI

Burnaby, BC

- Wrote Ansible playbooks independently and collaboratively with senior developers for configuration management, demoing to team leads and managers, and assisting in deployment
- Analyzed defects in a web application by investigating 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
- Reviewed and refactored code in Java to update how user cache information was written into the database
- Wrote unit tests using JUnit and Mockito to test how user information was stored in a mock database
- Ran smoke tests and resolved all test failures on Test Harness, particularly after an update to an environment
- Contributed to the deployment of updated features on the web application and resolved bugs on each environment

### Research and Health Coordinator

Nov 2018 – July 2021

Canada's National Ballet School

Toronto, ON

- Implemented a digital arts-based health program across Ontario, completing the pilot with a 79% retention rate
- Exceeded target research participants by 172% and contributed to the manuscript for 2 publications

## PROJECTS

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### Music Sheet Domain Specific Language (DSL)

Jan – Feb 2024

Course Project

Vancouver, BC

- Leveraged ANTLR to implement grammar rules, JUnit for testing, and Java to convert tokens to AST objects
- Led the design of grammar rules, conducted user study, and implemented the feedback for each deliverable phase
- Built a DSL for generating sheet music, featuring creation, mutation, and repetition of notes, chords, and sequences

### 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

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### University of British Columbia

Vancouver, BC

Bachelor of Computer Science (BCS)

Sept 2021 – May 2024

- Courses taken: Advanced Software Engineering (CPSC 410), Introduction to Computer Networking (CPSC 317), Natural Language Processing (CPSC 436N), Introduction to Relational Databases (CPSC 304)

### 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