Benjamin Chang

📞 604-603-6766 | ✉ benjamin.kn.chang@gmail.com | 👤 bkchang-97.github.io | ⭘ bkchang-97 | 🔗 benkchang

Work Experience

Visier *Vancouver, Canada*
Software Developer Intern (Studio) *Sep 2021 – Apr 2022*
- Working on the Studio team, helping build the new platform for Visier's analytics product and software
- Currently debugging and testing the codebase and assisting mentor in implementing features and tenant requests

University of British Columbia *Vancouver, Canada*
Prairie-Learn Developer *Apr 2021 - Present*
- Full stack development position for UBC's web-based assessment platform PrairieLearn used in the CS department
- Designed and implemented 100+ exam questions (using Python/Java/C++ backend and HTML frontend)
- Made sure to incorporate randomized question data generation and customized autograders to minimize cheating, resulting in our course (CPSC 203) reporting some of the lowest numbers of academic dishonesty in the department
- Created new lab content for the course as well as auto-graders for the programming assignments eliminating the need for teaching staff to spend time on grading and dedicating more time for office hours and content preparation

Back-End Developer *Sep 2020 – Apr 2021*
- Using Canvas API, helped UBC course instructors transition their course resources online for remote learning
- Worked on md2canvas: a package to create Canvas quizzes in Markdown format and directly exporting them to the course Canvas website bypassing any manual setup, this helped instructors reduce time spent on quiz setup by ~70%
- To improve workflow, added a script to extract iClicker questions from lecture slides into a MD quiz for md2canvas

Teaching Assistant *Sep 2019 - Present*
- Courses on data structures and algorithms; average student evaluation score of 4.8/5 (across 83 students | 5 terms)
- Run weekly labs, hold office hours to help students with difficult concepts and lead exam review sessions
- Recently received the 2021 CS Undergraduate Teaching Assistant Award for outstanding work and service

Projects

Gym 18 (link) *June 2021*
- Designed and implemented a database system to model the inner workings of a fitness centre like a gym
- Using Java + Oracle, we created an application providing access to a custom database with multiple functions through the GUI: registering accounts, booking training sessions, creating/following diet plans, etc.

BCS Degree Checker (link) *Oct – Nov 2020*
- A Java application that allows the user to run graduation and promotion checks for the BCS degree at UBC
- Added a data persistence feature allowing user to save/load the program and their courses as JSON data to/from file
- Project written in Java and thoroughly tested with JUnit, with a graphical user interface implemented with Swing

Perfect Pitch *Jul – Aug 2020*
- An audio-based chord guessing game created for my music students to better adjust to COVID remote learning
- Currently published in the Google Play Store and used by my students for their weekly practice and ear training
- Since deployment, students' ear tests have improved greatly: ~50% increase in perfect scores in annual music exams

Skills

Languages	Python, Java, C++, Scala, R, TypeScript/JavaScript, Kotlin
Tools/Frameworks	Angular, SQL, Git, Excel
Packages/Libraries	Pandas, Numpy, scikit-learn, JUnit, SwingUI

Education

University of British Columbia *Vancouver, Canada*
BCS in Computer Science *2020 – Present*
- Anticipated Graduation: April 2023
- Relevant Courses: Data Structures, Algorithms, Software Engineering, Machine Learning, Data Science, Databases
BSc in Life Sciences & Chemistry *2015 – 2020*