

Benjamin Chang

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Work Experience

Visier *Vancouver, Canada*
Software Developer Intern (Incoming) *Sep 2021 – Apr 2022*

University of British Columbia *Vancouver, Canada*
Prairie-Learn Developer *Apr 2021 - Present*

- Assisted instructor Cinda Heeren to develop course content for her new programming and algorithms course
- Designed 100+ exam questions on PrairieLearn (using Python/Java/C++ and HTML) with randomized question data generation and customized autograders to minimize academic dishonesty
- Created all lab content for the course: activities on OOP, data structures and computational thinking

Back-End Developer *Sep 2020 – Apr 2021*

- Using Canvas API, helped course instructors transition their course resources online for remote learning
- Primarily worked on md2canvas: a package that allowed quizzes in Markdown to be exported to Canvas
- Added a script to extract and format iClicker questions from lecture slides into a MC quiz for md2canvas

Teaching Assistant *Sep 2019 - Present*

- Worked for various courses: CPSC 103, 203, 221 (courses on programming, data structures and algorithms)
- Run weekly labs, mark assignments/exams and hold office hours to help students with difficult concepts
- Recently won the 2021 Undergraduate Teaching Assistant Award for outstanding work and service

Projects

Mood Calendar *Jun - Jul 2021*

- A pandemic-inspired project: an app allowing users to track their mental health throughout the week
- Each day the user ranks their mood with 1 of 5 colors, which would be recorded & displayed in a week view
- The project was a collaborative effort among friends, created in xCode using Swift and the SwiftUI library

Gym 18 (CPSC 304) *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.
- Allowed for different user types which offer different functionalities: master account, gym user, gym trainer

Perfect Pitch *Jul - Aug 2020*

- Created an educational game app for my music students in order to better adjust to online learning
- Using Kotlin and Android Studio, designed an audio-based chord guessing game for ear training
- Currently used by my Tom Lee music students and making adjustments based on feedback from parents

Skills

Programming Languages Python, Java, R, C++, HTML+CSS

Other Tools Excel, Github, Jupyter, VSC, IntelliJ, PyCharm, Oracle

Packages/Libraries Pandas, Numpy, scikit-learn, Junit, Swing, SwiftUI

Education

University of British Columbia *Vancouver, Canada*
BCS in Computer Science *2020 - Present*

- Bridging Module: Data Science
- Anticipated Graduation: April 2023

BSc in Life Sciences & Chemistry *2015 - 2020*