Benjamin Chang

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Work Experience

Visier Inc. *Vancouver, Canada*

Software Developer Intern (Studio) *Sep 2021 – Apr 2022*

- Worked in full-stack agile web development using Scala and Angular, on Visier's Studio team
- Implemented and synced frontend UI with backend for new feature allowing admins to set an analysis for display when users first sign in to Visier, enabling them to quickly scan details about their organization
- Helping build new application feature for reporting, flagging and fixing data issues in tenant data versions

University of British Columbia *Vancouver, Canada*

Prairie-Learn Developer *Apr 2021 - Present*

- Frontend development position for UBC's web-based assessment platform PrairieLearn used in the CS department
- Designed and implemented 200+ exam questions (using Python/Java/C++ backend and HTML frontend)
- Incorporated 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

Projects

League Champ Predictor *Dec 2021*

- Built and trained a classification model to predict a League of Legends champion with highest chance of victory,
- Used RiotAPI to fetch match history, Pandas dataframes to format and clean data before running through a scikit-learn classification model, process included pre-processing (column transforming) and hyperparameter tuning
- Built a GUI so application can be run alongside game client and team/enemy champions can be entered easily
- Prediction accuracy around 20% but win-rate with predicted champion around 90%

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.

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, Typecript, Javascript, Scala, Java, R, C++, Kotlin, Swift
Frameworks/Libraries	Angular, React, Pandas, Numpy, scikit-learn, SwiftUI
Tools/Technologies	Git, Android Studio, Microsoft Excel, PrairieLearn

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*