Benjamin (Kai-Nan) **Chang**

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Work Experience

Visier Inc.
Vancouver, BC

Software Developer Intern
Sep. 2020 - Present

- Working in full-stack agile web development using Scala and Angular, helping build out Visier's new modern application platform: Studio
- Implemented and synced frontend UI with backend for new homepage feature allowing admins to set an analysis for display when users firt 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 versions
- Assisted new intern hires with bugs, tickets, setup and general workflow questions

University of British Columbia
Vancouver, BC

PrairieLearn Developer
Apr. 2021 - Present

- Frontend development position for UBC's web-based assessment platform PrairieLearn used for computer science classes
- Designed and implemented 200+ exam questions (using Python/Java/C++ and HTML)
- Incorporated randomized question data generation and customized auto-graders 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 focusing more on office hours and course development

University of British Columbia
Vancouver, BC

Python 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 and directly exporting them to the Canvas course site bypassing any manual setup, this helped instructors reduce time spent on quiz setup by roughly 50%
- To improve workflow, added a script to extract iClicker questions from lecture slides into a markdwon quiz for md2canvas

Projects

League of Legends Champ Predictor
Link

Python, pandas, scikit-learn, tkinter
Dec. 2021

- Built and tuned a classification model to predict the champion with highest chance of victory based off of teammates and opponents' selections
- Used Riot API to fetch match history, Pandas dateframes to format/clean data before running through a ML pipeline which included pre-processing (column transforming), hyperparameter tuning and finally the model fitting and deployment
- Built a GUI with tkinter 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 is around 90%

Gym 18
Link

Java, SQL, Swing
Jun. 2021

- Designed and implemented a database system to model the inner workings of a fitness cetnre 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
Link

Android Studio, Kotlin
Jul. 2020

- An audio-based chrod guessing game created for my music students to better adjust to remote learning during the COVID pandemic
- Published in the Google Play store and used by my music students as part of their weekly practice and ear training
- Since deployment, students' ear tests have improved greatly: roughly 50% increase in perfect scores in annual music exams

Technical Skills

Languages	Python, Java, Typescript, Javascript, Scala, R, C++, Kotlin, Swift
Frameworks/Libraries	Angular, React, Pandas, numpy, scikit-learn, JUnit, Swing, SwiftUI
Tools/Technologies	Git, Android Stuio, Microsoft Excel, PrairieLearn

Education

University of British Columbia
Vancouver, BC

BCS - Bachelors in Computer Science
Sep. 2020 - Present

- Anticipated Graduation: April 2023
- Relevant Courses: Data Structures, Algorithms, Software Engineering, Machine Learning, Data Science, Relational Databases

University of British Columbia
Vancouver, BC

BSc in Life Sciences and Chemistry
Sep. 2015 - Apr. 2020