# **Richard Chen**



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#### **TECHNICAL SKILLS**

Programming Languages: Swift, JavaScript, TypeScript, Java, Dart, Python, GraphQL, HTML, CSS

Databases, Frameworks, Libraries: Redux, Node.js, React, Firebase (NoSQL), Flutter, PostgreSQL

Others: Jira, Git, Junit, XCTest, XCode, Mocha

#### **EXPERIENCE**

#### Software Engineer Co-op (iOS Mobile), Realtor.com

Sep 2021 - Apr 2022

- Pioneer the refactor of the authentication and login layer from MVC to a Composable Architecture (Redux) framework
- Transition the Realtor.com iOS app from REST to GraphQL for core feature network calls
- Take ownership over features related to the user's account, authentication, and navigation experience
- Write detailed unit tests over features developed and support Quality Engineering in bi-weekly testing

#### Assurance Associate / Digital Accelerator, PwC Canada

Sep 2018 - Mar 2020

- Used Alteryx & Tableau to automate repetitive tasks processing, and visualizing multiple fiscal years' worth of financial data
- Assessed financial statements of multi-million dollar companies for compliance with GAAP (IFRS & ASPE)

#### **SOFTWARE PROJECTS**

#### Spotify Song Recommender (Technologies: JavaScript, React, Express, Node.js, Python, Flask, Scikit-Learn)

In-Progress

- Created re-usable React components for displaying songs results from the Spotify API and song recommendations
- Trained and improved the efficiency of a machine learning pipeline to return song recommendations using two-level retrieval combining KMeans and KNearestNeighbour models
- Set up a Flask backend to interface with the main Node.js server to retrieve song recommendations via HTTP methods

## Course Grade & Campus Room Explorer (Technologies: TypeScript, Express, Svelte, Mocha)

Mar 2023

- Created an intuitive Svelte front-end enabling querying historical course grade information using and EBNF schema
- Efficiently parse JSON and HTML files using asynchronous TypeScript Promises to store relevant course & room information
- Connect front & backend using REST HTTP methods to enable CRUD functionalities

### Payment Processor Simulator Technologies: React, PostgreSQL, JavaScript, Express

Aug 2022

- Design and model a relational database for a payment processor in PostgreSQL
- Create HTTP endpoints in JavaScript on an Express/Node.js backend to enable CRUD functions
- Create re-usable React components to rapidly iterate on a front-end to demo transactional flows

#### **HACKATHONS**

## AuditApp - Hack the North 2021 (Devpost)

Technologies: MongoDB, Express.js, React.js, Node.js, Google Cloud Document AI API, Google Cloud Storage API

- Created a platform for financial auditors to manage requests for documentation from their clients
- Use JavaScript to parse relevant financial information from invoices using Google Cloud Document AI and Google Storage API

#### **EDUCATION**

## Bachelor of Computer Science, 4th Year,

Expected Graduation May 2024

The University of British Columbia, Vancouver, BC

# Bachelor of Commerce (Accounting), Minor in Management Information Systems

Sep 2013 – May 2018

The University of Alberta, Edmonton, AB

#### **EXTRACURRICULAR**

#### **Vice-President, Bachelor of Computer Science Student Association**

Jan 2021 - Dec 2021

- Organized 28 social and career development events for BCS students in connection with alumni & employers
- Successfully planned a hackathon for BCS students with \$4,000 in prizes and ~70 registrants