Sukhwinder Singh

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EDUCATION

Bachelor of Science - Computer Science   *Jan 2018 - Dec 2022*
Simon Fraser University   *Burnaby, BC*

SKILLS

Programming Languages	Python	Java	JavaScript	C++	C	SQL
Technologies	AWS	Docker	GraphQl	React.js	Next.js	Node.js	HTML	CSS	Android	Microservices

EXPERIENCE

Software Engineer Co-op   **Sept 2021 - Aug 2022**
Realtor.com   *Vancouver, BC*

- Streamlined the user experience by implementing an auto-complete search component and sticky search bar for the homepage using React.js that leads to 20% more return users to search.
- Improved search results by adding new REST API endpoints to access the Hestia database with GraphQL.
- Contributed to the development cycle by deploying code to production twice a month and closely monitoring and diagnosing core web vitals to resolve related issues.
- Accelerated page load times by implementing lazy loading for non-critical components and using smaller hero images in multiple formats.
- Supported data-driven decision making by implementing A/B testing using Optimizely for both mobile and desktop users.
- Collaborated on a typescript migration and implemented cypress E2E testing and integration testing, resulting in over 95% unit test coverage.
- Provided creative insights and suggestions in product design meetings, including a highly praised idea to implement a dummy component for the search bar.

Applicaton Developer   **Apr 2021 - Jul 2021**
CJSF, Simon Fraser University, Contract   *Burnaby, BC*

- Participated in cross-platform mobile development using React Native.
- Worked with a team to add a new fragment for selecting favorite shows and sending notifications.
- Adhered to test-driven development principles using Jest.

NOTABLE PROJECTS

Flow Android App

</> *Code*

- Published an Instagram-like android app using Java that allowed users to post memes, follow other users, like memes, and earn points for each like received.
- Enhanced functionality by integrating Firebase for real-time post syncing, authentication, and server storage.
- Implemented a cloud function to save memes in a queue data structure and automatically delete older memes.
- Improved user experience by leveraging caching for smooth scrolling and integrating native ads in the recycler view.
- Designed transactions to handle simultaneous likes/unlikes by multiple users.
- Utilized: Java, JavaScript, caching, Firebase, Glide, Android Studio, Realtime Database, native ads APIS

Hangman web game

Object Oriented Design in Java

- Developed an online HTML-based game that made use of GET and POST requests to transfer data between the client and server.
- Utilized: Spring Boot, Thymeleaf Engine, Model-View-Controller design pattern, Java, HTML

Text-based messenger

Operating Systems

- Designed a messaging application to communicate between two local terminals using sockets
- Implemented a mailbox using a list data structure.
- Restructured the application as multi-threaded to allow for concurrent send/receive/type/see messages.
- Utilized: C, pthreads, sockets, locks, data structures, IPv4