




# Khushwant Singh Parmar

 Surrey, BC |  778-513-3081 |  [ksparmar@sfu.ca](mailto:ksparmar@sfu.ca)

 <https://github.com/>  <https://www.ksparmar.com>

## TECHNICAL SKILLS

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- **Programming Languages** : Python, C, Java, Javascript, R, SQL, HTML, CSS
- **Technologies**: MySQL, SQL Server, Balsamiq, Figma , NodeJs, Android Studio, Linux

## PROJECTS

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### Personal Portfolio Website 2021)

(December

- Created a portfolio website with React components and deployed using Netlify
- Features some of the projects listed below with demonstration videos
- Wrapped using Tailwind CSS, added Google Maps API support, and Netlify forms

### Property Prices Analyzer

(July 2021)

(CMPT 353, Computational Data Science)

- Used Python pandas and numpy libraries to analyze property price change trends for city of Vancouver before and during pandemic.
- Built and trained regression models (KNN, Random Forest, Gradient Boosting, Multilayer Perceptron) to predict price of property listing based on location, year built, type of dwelling, etc.
- Built and trained classification models (GaussianNB, KNN, Random Forest, Self Training Classifier) to predict property listing neighbourhood based on prices, location, type of dwelling, price change.
- Performed statistical analysis on final data for price change trends based on type of dwelling and neighbourhood and presented visualizations using matplotlib.pyplot library

### LAN Chat Functionality

(November 2020 – December 2020)

(CMPT 300, Operating Systems)

- Implemented a text chat functionality using UDP sockets in C language
- Used multithreading for handling input, sending, receiving and display of messages
- Used fixed size buffers for storing messages, mutexes and conditional variables for synchronization
- Allowed users on two machines on the same network to connect using port numbers and chat

### Linux Commands simulation

(November 2020 – December 2020)

(CMPT 300, Operating Systems)

- Created a linux process life-cycle commands simulation using lists, priority queues and semaphores.
- Allowed users to create, fork, kill, get information about and block/unblock processes on semaphore using keyboard commands in linux terminal.
- Enabled processes to share messages between each other using lists as buffers and priorities to block/unblock senders and receivers to allow concurrent access of the buffers.
- Simulated the ls command in linux including ls -i, ls -l , ls -ls, ls -R , ls -r and their combinations.

### Music Database

(November 2020 – December 2020)

(CMPT 354, Database Systems 1)

- Created an SQL server database to represent data about a fictional music company
- Ensured correct data input, updating and deletion using triggers
- Allowed user to execute complex queries using stored procedures
- Created user defined functions for database tables to ensure data consistency

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## PROJECTS CONTINUED

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### FindDaMatch

(June 2020 – August 2020)

(CMPT 276, Introduction to Software Engineering)

- Developed a digital version of the game Spot-it with a team of 4 people
- Used scrum project development approach in 3 iterations lasting 2 weeks each
- Programmed in android(java) and used GitLab for version control
- Used android canvases to simulate cards and user provided with the choice to use preloaded, Flickr or images with text
- Allowed user to choose their own images, play different levels of hardness and access their high scores, extensively using android layouts and activities to provide an intuitive UI

### Usability Assessed Interactive Prototype

(July 2020 – August 2020)

(CMPT 363, User Interface Design)

- Identified critical usability issues and created an interactive prototype for the Canvas mobile app
- Conducted heuristic evaluation with a team of 4 people to detect aspects of UI violating Jakob Nielsen's 10 heuristics
- Used Balsamiq to create storyboards based on design scenarios derived from usability research
- Used Figma to create prototype incorporating information from visual design essentials, Don Norman's visual design principles, and the C.R.A.P design principles

## WORK EXPERIENCE

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### Cashier – Safeway, Surrey BC

(November 2018 – October 2020)

- Cashed out purchases and operated check stand at the front end
- Attended to customer needs and guided them through the aisles employing clear communication and product knowledge
- Faced aisles according to the directions of the manager. i.e. organized, shelved the products

## EDUCATION

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### Simon Fraser University, Burnaby, BC

(September 2018 – Present)

- BSc Computing Science

Expected Graduation: August 2023