Khushwant Singh Parmar

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Technical Skills

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

Projects

Personal Portfolio Website **(December 2021)**

- 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

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

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

Simon Fraser University, Burnaby, BC **(September 2018 – Present)**

- BSc Computing Science — Expected Graduation: August 2023