Jashandeep Singh

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Education

University of Waterloo Waterloo, ON

Bachelor of Computational Mathematics, Statistics and Computer Science Minor *December 2022*

- Courses: Object Oriented Programming in C++, Data Structures, Approximation Algorithms, Applied Cryptography, Networks and Distributed Systems, Databases, Forecasting
- UW President's Scholarship

Technical Skills

Languages: Python, C++, Java, Kotlin, Golang, C, JavaScript, SQL, Scheme, HTML/CSS
Frameworks/Libraries: React, Redux, Node.js, Flask, PyTorch, Pandas, NumPy
Tools: Git, Android Studio, AWS, Bash, Docker, Kubernetes, Jira

Experience

Freelance Developer - SOCA June 2021 - Aug 2021

Web Developer *Waterloo, ON*

- Built an interactive website in **React** and **Redux** for a cricket league played in Ontario by 16 teams every year
- **Improved load time by 15%** by managing website's state with redux and integrating lazy loading of images
- Built a scalable UI capable of handling big traffic load by reducing UI re-renderings which **decreased data processing cost by 20%**

Petro-Wagon Aug 2019 – Jan 2020

Software Engineer *Remote*

- Developed an **android app** for an online fuel delivery service-based startup from scratch
- Programmed app's local database using **Android Room** and implemented **SQL** queries to store mutable live data
- Maintained structured code using **MVVM architecture** to enhance reusability and optimized app performance

Stark Softwares May 2017 – Aug 2017

Testing Engineer *Remote*

- Contributed to over 50 UI automation tests and debugged UI/UX issues, ensuring 100% compliance with quality
- Effectively wrote clean and reusable code for designing templates for clients and performed troubleshooting

Projects

iRead | *Java, SQL, XML*

- Developed a book reading Android app with an access to more than **0.5 million** books from **Google Books API**
- Implemented the database using **SQLite** where users can create their profile and save favourite quotes within app
- Designed a user-centered consistent UI which displays books in customizable categories like favourites, current read

AI Chess | *C++*

- Developed in C++, a fully functional game of chess with a support of playing against computer
- Implemented human vs computer version using **min-max algorithm** to generate optimal computer moves
- Reduced code redundancy by using OOP principles and design patterns like **observer, decorator**

Crypto Alert | *Kotlin, Go*

- A real-time cryptocurrency app that notifies the users if any cryptocurrency's price goes beyond their set limit
- Built the **application server** in Go using **echo framework** to handle http requests and other backend services

Flower Prediction | *Python, Flask, PyTorch*

- Implemented a **Convolutional Neural Network (CNN)** trained on VGG19 model from **PyTorch** that uses image recognition and **supervised machine learning algorithms** to predict the name of the flower
- Trained the model using a dataset of more than 8 thousand images and minimized **overfitting** to achieve a **prediction accuracy of more than 85%**
- Deployed the model into a web app to classify the species of flower present in the image uploaded by user

Extracurricular Activities

- Participated in various hackathons including **Hack the 6ix**, **Starter Hacks**