# Jashandeep Singh

ASPIRING SOFTWARE ENGINEER · COMPUTATIONAL MATHEMATICS MAJOR

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## Education

**University of Waterloo**                                                                          *Waterloo, ON*
HONOURS BACHELOR OF COMPUTATIONAL MATHEMATICS, STATISTICS MINOR                    *Sep 2017 - Dec 2022*
- Courses: Object-Oriented Programming in C++, Data Structures, Cryptography, Approximation Algorithms, Combinatorics, Networks and Distributed Systems, Databases, Forecasting

## Skills

**Languages**  Python · Go · C++ · Kotlin · Java · C · Javascript · SQL · R · Bash · HTML/CSS

**Tools**  React · Node.js · Express · Android Studio · PyTorch · MongoDb · Git · PostgreSQL

## Experience

**Freelance Developer - SOCA**                                                                     *Remote*
WEB DEVELOPER                                                                                *June 2021 - Aug 2021*
- Built an interactive website in **React** for a cricket league played in Southern Ontario by 16 teams every year
- **Enhanced load time by 15%** by implementing website's state to be managed using **redux** and lazy loading the images
- **Increased traffic by 50%** by rewriting the entire UI using responsive react components and user interactive features

**Petro-Wagon**                                                                                   *Chandigarh, IN*
SOFTWARE ENGINEER                                                                           *Aug 2019 - Sep 2020*
- Developed an Android app for an online fuel delivery service based startup from scratch
- Pioneered company's successful pilot project and beta version of the app gained over **200 B2B** clients in a span of 1 month
- Maintained clean and structured code using **MVVM architecture** to enhance reusability and optimized app performance

**Stark Softwares**                                                                                 *Beas, IN*
TESTING ENGINEER                                                                             *May 2017 – Aug 2017*
- Automated testing that will be performed at all layers of programming interfaces and resolved UI/UX issues
- Effectively wrote clean and reusable code for designing templates for their clients and performed troubleshooting

## Projects

**iRead |** Java, SQL, XML ⬡
- Developed a book reading **android app** with a collection of more than 0.5 million books from **Google Books API**
- Designed and implemented the database using SQL, allowing users to create their profile and save favorite quotes within app
- Designed an interactive and consistent UI which displays books in customizable categories like favorites, current readings

**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

**TODO |** React, Express, Node.js ⬡
- Built a full stack web app where users can organize their daily tasks to make the most out of the day consistently
- Users can update a task into 3 categories : To-Do, Done and Doing which helps them stay organized
- Implemented a database for tasks which allows users to examine their past performance which increases productivity

**Game of Chess |** C++ ⬡
- Developed in C++, a fully functional game of Chess played using command line
- Implemented human vs computer version of the game using **min-max algorithm** to generate optimal computer moves
- Improved performance and code reusability by using OOP principles and design patterns like **observer, decorator**

## Awards

- President Scholarship of Distinction - $5000
- All India 903 rank in Math and Science Competition held among high school students