

Ankush Kumar

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EDUCATION

University of Waterloo

Waterloo, ON

Honours Bachelor of Computer Science (4th year)

December 2022

- Coursework: Operating System, Algorithms, Data Structures, User Interfaces, Object-Oriented Programming, Algorithm Design and Data Abstraction, Combinatorics, Probability, Applied Cryptography
- University of Waterloo Presidential Scholarship

TECHNICAL SKILLS

Languages: Python, C++, Java, Kotlin, Golang, C, JavaScript, SQL, Scheme, HTML/CSS

Tools: React, Git, Android Studio, Node.JS, Bash, Docker, Heroku

EXPERIENCE

Freelance - SOCA

June 2021 - August 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
- Implemented user-centered design, applied multi-page layout, **DRY principle** using **React-Bootstrap and CSS**
- Built a scalable UI capable of handling big traffic load by reducing UI re-renderings which **decreased data processing cost by 20%**

Petro-Wagon

August 2019 – January 2020

Software Engineer

Remote

- Developed an **android app** for an online fuel delivery service-based start-up from scratch
- Programmed app's local database using **Android Room** and implemented **SQL** queries to store mutable live data
- Built **onboarding flow** to collect user information for customized suggestions
- Maintained structured code using **MVVM architecture** to enhance reusability and optimized app performance

TechT Solutions

January 2019 – April 2019

Quality Assurance Analyst

Remote

- Created 40+ automated tests to replace manual testing and demonstrated clear and reproducible problem reports
- Identified, documented, and reported bugs and other issues within the proprietary software applications

ICSD Tech Labs

May 2018 – Aug 2018

C++ Tutor

Panipat, HR

- Worked closely with multiple batches of high school CS students to tutor in **Object Oriented Programming**
- Analyzed and debugged code written by different individuals, provided feedback and helped them with queries

PROJECTS

Healthy 24/7 | Java, XML

- Developed an **Android App** using Java and XML that lets you set up a diet chart, calculate BMI as well as BMR
- Implemented data storage using **SQL database** that lets user create log of their BMI/BMR at a specific time
- Integrated USDA Nutrition **Database API** using Retrofit **HTTP client library** to search food nutrition

Chess - Three Levels | 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**

RayTracer | C++

- A raytracer written in C++ to render and produce highly realistic images of geometric data like spheres in a scene
- Provided **multi-threading support using OpenMP API** and implemented features like **anti-aliasing**

EXTRACURRICULAR ACTIVITIES

- Participated in various hackathons including **SpaceApps, Distance Hacks, Equithon**