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 bathes 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**