

Ankush Kumar

ASPIRING SOFTWARE ENGINEER · COMPUTER SCIENCE MAJOR

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Education

University of Waterloo

Waterloo, ON

HONOURS BACHELOR OF COMPUTER SCIENCE (4TH YEAR)

January 2017 - December 2022

- **Coursework:** Operating System (OS), Algorithms, Data Structures, User Interfaces (UI), Object-Oriented Programming (OOP), Algorithm Design and Data Abstraction, Combinatorics, Probability, Applied Cryptography

Skills

Languages Python · C · C++ · Kotlin · Java · Golang · JavaScript · Scheme · HTML/CSS · Bash · SQL
Tools Android Studio · React · Git · Node.js · JavaFX · Heroku

Work Experience

Freelance - SOCA

Remote

WEB DEVELOPER

June 2021 - August 2021

- Created an interactive fully responsive **website** from scratch using react designed for an Ontario Cricket League played by 16 teams
- **Enhanced load time by 15%** by implementing website's state using redux library and lazy loading pattern for the images
- Wrote clean, efficient, and easily testable code by incorporating website architecture and following good code practices
- Implemented user-centered design using **React-Bootstrap and CSS** while also applying multi-page layout and **DRY principle**

PetroWagon

Remote

ANDROID DEVELOPER

January 2020 - April 2020

- Developed an **Android App** from scratch using **Java and XML** for a fuel delivery-based startup allowing simultaneous multiple orders
- Pioneered company's successful pilot project and started with making beta version of the application
- Maintained clean and structured code using **MVVM architecture** to enhance reusability and optimized performance
- Built **onboarding flow** to collect user information for customized suggestions
- Reviewed, evaluated, and resolved technical support requests in a timely and effective manner

ICSD Tech Labs

Panipat, India

C++ TUTOR

May 2018 - August 2018

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

Projects

Healthy 24/7

HTTP://GITHUB.COM/ANKUSH7KUMAR/HEALTHY24-7

- Developed an **Android App** using **Java and XML** that lets you set up a diet chart and calculate your body's BMI as well as BMR
- Integrated USDA Nutrition **Database API** using Retrofit **HTTP client library** to search nutrition of around 220,000+ food items
- Implemented data storage using **SQL database** as the user can create log of the users BMI and BMR at a specific date and time

Chess - Three Variations

HTTP://GITHUB.COM/ANKUSH7KUMAR/THEGAMEOFCHES

- Created a **Command Line chess** game from scratch using **C++** with up to three levels of human versus computer variations available
- Implemented **min-max algorithm** to generate next optimal move of the computer in human vs computer version of the game
- Used **Design Patterns** for efficient code, the game written could be upgraded to the graphical version from command line version

Ray Tracer

HTTP://GITHUB.COM/ANKUSH7KUMAR/RAYTRACER

- A ray-tracer 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 advanced features like anti-aliasing

Awards and Activities

- Participated in various hackathons including **SpaceApps, Equithon, DistanceHacks**
- Awarded **Academic Excellence Award** for achieving perfect GPA for 5 consecutive years