Ankush Kumar

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EDUCATION

University of Waterloo   Waterloo, ON
Honours Bachelor of Computer Science   *August 2022*
- **Coursework**: HCI, Applied Cryptography, Computer Security and Privacy, Operating System, Algorithms, Data Structures, User Interfaces, Logic and Computation, Object-Oriented Programming, Probability
- **Awards**: University of Waterloo Presidential Scholarship

EXPERIENCE

NexDew Technologies   November 2022 - January 2024
Software Developer   *Remote*
- Developed and maintained **30 RESTful APIs** for "Sumaitriherp" hospital-based web application, handling CRUD operations, user authentication, patient management, & appointment scheduling, **using Spring Boot** with Spring Data JPA, Spring Security, Spring MVC, and MySQL database, resulting in streamlined processes
- **Improved web response time by 15%** through SQL query optimization and API endpoint refactoring
- Implemented data validation & error handling, **reducing errors by 25%** & ensuring accurate data processing

SOCA   May 2021 - August 2021
Web Developer   *Waterloo, ON*
- Built an interactive website in **React** and **Redux** for a cricket league played in Ontario by 20 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%**

PetroWagon   August 2019 - January 2020
Software Engineer   *Waterloo, ON*
- 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

Davis Centre Library   January 2022 - August 2022
IT Specialist (Part-time)   *University of Waterloo*
- Monitored & troubleshoot network security issues using **Nessus** and **Nmap**, responding to security threats
- Maintained library's **Sophos firewall** and **virtual infrastructure**, resolving issues for seamless operations
- Conducted ongoing **Linux server maintenance** to ensure reliability and security for library systems

PROJECTS

VirtualHaus 🔗 | *Kotlin*
- Designed and developed an **Android Application** written using Kotlin following **MVVM** design pattern
- The app lets you keep track of items in the house, book quiet times, add events, check expenses, and more
- Architectured using **Client-Server** model where live data is handled through **Firebase Realtime Database**

Game of Battleship 🔗 | *Kotlin*
- Created a **Desktop Application** written in **Kotlin**, using **Javafx toolkit** following **MVC** design pattern
- Implemented User Interface concepts such as **Graphics, Animation, Hit-Testing**, and **Transformations**

PUBLICATIONS

- **Enabling Brainstorming across Time Zones** 🔗 | Addresses a tool-suite designed for asynchronous collaboration

TECHNICAL SKILLS

Languages: Python, C++, Java, XML, Kotlin, C, JavaScript, SQL, Scheme, CSS
Databases and Tools: MySQL, OracleDB, Firebase, Hibernate, Git, Bash, AWS, Docker, Heroku, Postman
Framework and Libraries: React, Redux, Node.js, Spring Boot