

Ankush Kumar

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EDUCATION

University of Waterloo

Waterloo, ON

Honours Bachelor of Computer Science

October 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 using **React** and **Redux** for a cricket league, used by more than 200 users, with features including user profiles, user & team stats, previous scorecards and a league leaderboard
- **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

PROJECTS

Wallet | Java

- Created web application for user registration, authentication, fund transfers, withdrawals, and deposits
- Implemented core features using **Servlets**, **Sessions**, **Persistence API**, and **Hibernate ORM**
- Managed **MySQL database** for secure and efficient data storage and retrieval operations

BookYourShow | Java

- Developed a movie booking platform with **Servlets**, enabling admin movie management and customer bookings
- Implemented seat selection and ticket printing features using **HTTP methods** and login using **Sessions**

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, Bash, Scheme, CSS

Databases and Tools: MySQL, OracleDB, Firebase, Hibernate, Git, AWS, Docker, Heroku, Maven, Postman

Framework and Libraries: React, Redux, Node.js, Spring Boot

Architecture Styles: Client-Server, MVC, MVVM, Microservices