Ansh Tiwari

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Education

Simon Fraser University — BASc in Computing Science **Jan 2023 – Present**
Burnaby, BC

Technical Foundations: Software Engineering, Systems Programming, Data Structures, Networking, Databases

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Technical Skills

Languages: C, C++, Java, TypeScript, JavaScript, Python

Frameworks & Tools: React, Spring Boot, Node.js, Express, Android Studio, Firebase, Git, Docker, Linux (Fedora KDE Plasma User)

Databases: PostgreSQL, MongoDB, SQLite, Firebase

Concepts: REST APIs, OOP, MVC Architecture, Data Structures & Algorithms, Socket Programming, CI/CD

Technical Projects

FAM App — Cross-Platform Music Application **Apr 2025**
React Native, Spring Boot, MongoDB *Full Stack Developer*

- Developing music streaming app integrating Spotify and YouTube APIs for unified playback experience
- Implemented secure 2FA authentication system and personalized user dashboards with playlist management
- Architected RESTful backend with Spring Boot; storing user profiles and track metadata in MongoDB Atlas
- Designed responsive React Native UI with cross-platform compatibility for iOS and Android devices
- Planning AI-powered song recommendations, real-time chat functionality, and friend-based collaborative playlists

Rizzervit Website — Movie Booking Platform **Oct 2024 – Dec 2024**
Spring Boot, PostgreSQL, JavaScript *Scrum Master & Full Stack Developer*

- Built full-stack movie booking platform with dynamic seat selection, user authentication, and profile management
- Integrated Google Maps API to dynamically display location-based theaters with real-time availability
- Designed RESTful backend using Spring Boot with PostgreSQL for persistent data storage and session management
- Created responsive frontend interface using HTML, CSS, and vanilla JavaScript for enhanced user interactivity
- Led 4-member Agile team; coordinated sprints, managed GitHub workflows, and conducted peer code reviews

Territory Control Game — Multiplayer Strategy Game **Feb 2023 – Apr 2023**
JavaFX, Socket Programming *Developer*

- Developed real-time multiplayer JavaFX game where teams compete to capture sequential tiles on a grid
- Implemented socket networking infrastructure for synchronized two-player gameplay over local area network
- Designed game logic with turn-based mechanics and territory control algorithms for competitive gameplay
- Optimized game state management using multithreaded event handling and efficient client-server messaging

Unix Shell Clone — Systems Programming Project **Sept 2024**
C, Linux *Developer*

- Developed Unix shell supporting I/O redirection, background process execution, and command pipelines
- Implemented core OS-level features using fork(), exec(), and wait() system calls for process management
- Built command parsing engine to handle complex inputs with proper error handling and signal management
- Demonstrated proficiency in low-level memory management, process scheduling, and inter-process communication

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Volunteer Experience

FIC IT Squad **Jan 2024 – April 2024**
Volunteer *Burnaby, BC*

- Coordinated hackathons, coding workshops, and co-op networking events for computing science students
- Collaborated with peers and faculty to solve student issues

HelpAge International **Aug 2021**
Volunteer Fundraiser *New Delhi, India*

- Organized donation campaigns supporting elderly care facilities under HelpAge NGO
- Developed interpersonal communication and event coordination skills through direct community outreach

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Interests & Activities

Leadership: VAL Challengers (NECC) Spring 2024 playoffs competitor — Member of CSSS and SFU Esports Club
Interests: UI/UX Design, Hackathons (Hack the North 2025), Esports Analytics, Cloud Development, Open-Source