# Jashanveer Singh Arora

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## Education – *University of Alberta*

**B.Sc. Major in Computer Science: Software Practices**

## Projects

### Whimsy: A Fully Functional Android Social Media App

- Spearheaded the development of a feature-rich **Android app enabling mood-based posts**, **interactive comments**, and real-time social connectivity.
- Designed and implemented a **dynamic content feed**, **follow system with privacy controls, and editable mood journals.**
- Built an interactive mood map to filter **emotional updates by time, user, or location.**
- Integrated **DALL·E API for in-app AI-generated images** from user prompts, enhancing creative engagement.
- Delivered a **polished mobile experience with responsive UI and scalable Firebase-backed infrastructure.**
- **Skills: Java, Android Studio, Firebase, Realtime Database, RESTful APIs, DALL·E API, UI/UX Design, Image Generation, Authentication, Social Features, Text Generation.**

### PulseChain: Hyperlocal Blood Donation Platform

- A real-time blood donor-recipient matching app based on location, urgency, and blood type compatibility.
- Developed cross-platform user interfaces in **React.js and React Native for web and mobile access.**
- Live matching engine powered by **Google Maps SDK, Firebase Cloud Messaging, and Socket.io.**
- Urgency-based scoring model for trauma and emergency prioritization using hospital input.
- Gamified the user experience with **donor leaderboards and predictive donor alerting.**
- **Skills: React.js, React Native, Node.js, Express, PostgreSQL, Firebase Cloud Messaging, Socket.io, Google Maps SDK, Real-Time Systems, Full-Stack Development**

### StudyZee: The Ultimate Student Hub

- Developed a comprehensive student productivity platform at Hacked 2025 using **Flask, HTML, CSS, and Supabase.**
- Engineered course and assignment management with **AI-driven deadline tracking and grade progress monitoring.**
- Designed an intelligent social networking system enabling connections, study groups, and academic collaboration.
- Built a real-time chat system using **WebSockets for direct messaging, group chats**, and automated chat rooms
- Integrated **AI-powered flashcard generation** from uploaded notes to enhance study efficiency.
- Developed an event discovery system to help students explore academic and social events.
- Implemented secure authentication with **Flask-Login and a custom SQL user table.**
- **Skills: Flask, Python, Supabase, PostgreSQL, WebSockets, AI, HTML, CSS, Authentication**

### SkyByte: Cloud Storage

- Engineered a full-stack cloud storage platform using **React**, **Next.js, TailwindCSS, TypeScript, and Appwrite.**
- Designed a seamless file management system with CRUD operations - upload, download, rename, and preview files.
- Integrated OTP-based **two-factor authentication (2FA)** for enhanced security and user verification.
- Developed secure file-sharing mechanisms with role-based access control.
- **Skills: React, Next.js, TypeScript, Appwrite, TailwindCSS, Authentication, Security**

## Skills

- **Programming Languages:** Python, Java, TypeScript, JavaScript, C, SQL, RISC-V
- **Frameworks & Libraries:** Flask, React, Next.js, TailwindCSS, Flask-Login
- **Mobile & App Development:** Java (Android Studio), Firebase, Real-Time Database, Firebase Cloud Messaging
- **Databases & Backend:** Supabase (PostgreSQL & Storage), MongoDB, Appwrite, SQL, Socket.io
- **Security & Authentication:** 2FA, OTP-based authentication, Flask-Login
- **Development Tools:** Git, GitHub, Vite, WebSockets, CI/CD Pipelines
- **APIs & Services:** TheMealDB API, AI-powered processing, OpenAI (DALL·E, GPT), Gemini, Google Maps SDK