

# Puneet North

📍 Vancouver, BC   ✉ [pkn4@sfu.ca](mailto:pkn4@sfu.ca)   🔗 [linkedin.com/in/puneet-north](https://linkedin.com/in/puneet-north)   🐙 [github.com/p-north](https://github.com/p-north)   🖥 [puneetnorth.vercel.app/](https://puneetnorth.vercel.app/)

## Education

### Simon Fraser University

Expected Graduation: Apr 2027

Bachelor of Science, Computer Science

Burnaby, B.C

- BC Achievement Scholarship — **GPA: 3.40**
- Courses: Algorithms and Data Structures, Intro. to Software Engineering, Computer Networking, Database Systems

## Technical Experience

### SFU Computing Science Student Society

May 2025 - Present

Web System Administrator

Burnaby, B.C

- Maintain and optimize backend services for [new.sfu-css.org](https://new.sfu-css.org) using **FastAPI** and **PostgreSQL** for a student society of **900+** members.
- Configured **Nginx** as a reverse proxy to route traffic for test deployment environments, enhancing system modularity and enabling isolated testing.
- Co-led weekly development meetings to plan backend tasks, review PRs, and onboard contributors, improving response time on internal tool issues.

### CJSF Radio 90.1

Apr 2025 - Present

Software Developer

Burnaby, B.C

- Automated and led the migration **10,000+** rows of structured data from a legacy **MySQL** database to a new CMS-backed instance, decreasing manual work by **50%**.
- Integrated new Strapi API with existing legacy Drupal infrastructure, reducing content update time by **15%** and simplifying editorial workflows.

## Projects

### Mock Interview Minesweeper Game | Python, FastAPI, MySQL, AWS S3, React, Google Gemini API



- Designed scalable **RESTful APIs** using **FastAPI** to manage game logic and session states, enabling seamless frontend-backend integration and supporting real-time updates.
- Optimized **MySQL** database queries and schema design to store game progress efficiently, achieving sub-100ms response times for critical operations and ensuring system reliability.
- Configured and integrated **AWS S3**, setting up storage buckets and automating object creation for managing game assets and data.

### Mindstream AI | React, TailwindCSS, Node.js, Express.js, Firebase, Open AI API, Google Cloud



- Led a team of 4 in an **Agile** environment to build a platform with **70+** active users that turns lecture notes into interactive study tools.
- Built a backend architecture with **Node.js** and **Express.js**, integrated with **Firebase** for database management, enabling real-time data storage and retrieval.
- Streamlined a **CI/CD** pipeline with **GitHub Actions**, automating deployment and integrating **Jest** for testing, reducing manual deployment errors by **25%** and speeding up release cycles.

### Rottify: AI Text-to-Video Generator | Next.js, TypeScript, Supabase, Docker, Perplexity AI API, FFmpeg



- Developed an AI platform using the **Perplexity AI API** to convert text into viral, TikTok-style video scripts, boosting engagement and clarity.
- Integrated **Supabase** for secure video and metadata storage, enabling efficient retrieval and playback.
- Containerized deployment with **Docker**, ensuring scalability and reproducibility across environments while reducing deployment times by **50%**.
- Designed and implemented **Next.js API** routes, handling input, video metadata and processing using **FFmpeg**.

### Multiplayer Networking Game | Python, Sockets, TCP/IP, Pygame



- Designed and implemented with team of 4 a **TCP**-based client-server architecture using Python socket programming
- Implemented data transmission protocols for player movement and game state synchronization between server and clients.

## Technical Skills

**Programming Languages:** Python, C, C++, JavaScript, TypeScript, SQL, HTML5, CSS

**Frameworks & Libraries:** React, Next.js, Node.js, Express.js, FastAPI

**Developer Tools:** Git/GitHub, AWS (EC2, S3, RDS), MongoDB, PostgreSQL, MySQL, Postman, Docker, Linux

**Concepts:** REST APIs, CI/CD (Github Actions), Agile, MVC Design, Testing (Jest/JUnit)