Puneet North

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Technical Skills

Languages: Java, Python, JavaScript, TypeScript, C, C++, SQL, x86 Assembly, HTML, CSS
Frameworks/Libraries: React, Next.js, Node.js, Express.js, FastAPI, Spring Boot
Developer Tools: AWS (EC2, S3), PostgreSQL, MySQL, MongoDB, Docker, NGINX, Postman, Github, Linux (Ubuntu)

Experience

SFU Computing Science Student Society   May 2025 - Present
Web System Administrator   *Burnaby, B.C*
- Maintained a backend system supporting internal tools and events portal serving a student society of **1,000+** members.
- Optimized **Python FastAPI** routes and indexed **PostgreSQL** queries to improve response times and resource usage.
- 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%.**
- Conducted code reviews and documented processes to ensure maintainable and compliant software solutions.
- Integrated new Strapi API with existing legacy Drupal infrastructure, reducing content update time by **15%** and simplifying editorial workflows.

Projects

Interactive Mock Interview Simulator | *Python, FastAPI, MySQL, AWS S3, Google Gemini API*
- Designed a **RESTful API** 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.

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.

TrainSmart: Spring Microservices API | *Java, Spring Boot, RabbitMQ, MySQL, MongoDB, Eureka Server*
- Developed a microservices-based backend for a fitness application using **Java Spring Boot** and object-oriented principles.
- Integrated asynchronous communication using **RabbitMQ** (Spring AMQP), improving system throughput and responsiveness by **30%** under peak loads.
- Implemented secure **OAuth 2.0** authentication and authorization using **Keycloak**, protecting user data and API endpoints across all microservices.
- Built service discovery and API gateway routing with **Eureka Server** and **Spring Cloud Gateway**, reducing inter-service latency by **25%** and improving scalability.

FoodConnect: Food Donation Platform | *React, Typescript, Node.js, Express, PostgreSQL, AWS (S3, RDS), Socket.io, JWT*
- Led a team of 4 as Scrum Master in a semester-long Google (GDSC) hackathon, managing weekly meetings, sprint planning, and task coordination for on-time delivery.
- Built secure authentication system with **JWT** tokens, bcrypt hashing, and role-based access control, passing security audit with zero critical vulnerabilities.
- Integrated real-time based messaging with **Socket.io**, increasing user engagement by approximately **70%** over traditional messaging.
- Deployed backend infrastructure using **AWS RDS** for PostgreSQL and **AWS S3** for image storage, cutting media load times by **25%.**

Mindstream AI | *React, TailwindCSS, Node.js, Express, Firebase, Open AI API*
- 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.
- Automated **CI/CD** pipelines with **GitHub Actions** and integrated **Jest** testing, reducing release errors by **25%** and accelerating deployment cycles.

Education

Simon Fraser University   Expected Graduation: Apr 2027
Bachelor of Science, Computer Science   *Burnaby, B.C*
- Awarded **BC Achievement Scholarship** for academic excellence.
- Coursework: Algorithms and Data Structures, Intro. to Software Engineering, Computer Networking, Database Systems.