

Nicholas Chan

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TECHNICAL SKILLS

Languages: Python, C++, C, TypeScript, JavaScript, Java, HTML/CSS, Bash, SQL

Libraries/Frameworks: React, Node.js, Express, Spring Boot, Flask, Django

Databases: PostgreSQL, MySQL, MongoDB, Firebase

Developer Tools: AWS (EC2, S3, Lambda, Aurora, etc.), Redis, Postman, Docker, SDLC, CI/CD, Git, Cursor

EXPERIENCE

Software Developer Intern

Sept. 2025 – Present

Blaise Transit

Montreal, QC

- Built scalable backend API features in TypeScript, supporting 12,000+ users across various transit networks.
- Improved Sequelize/MySQL queries to optimize database performance and ensure reliable data handling.
- Wrote S3 automation scripts during the company's migration from Azure to AWS, improving data reliability.
- Presented backend updates in sprint demos, both giving and receiving feedback across cross-functional teams.

Software Developer

May 2025 - Present

Simon Fraser University Robot Soccer Club (SFURS)

Burnaby, BC

- Aided the design and implementation of real-time path-finding algorithms for an autonomous robot soccer team.
- Designed integration and unit testing framework, ensuring reliability in game logic and robot coordination.
- Optimized and refactored C++ game logic, improving robot decision speed in competitive matches.
- Collaborated with 30+ developers in sprints, contributing to a GitLab CI/CD pipeline and code reviews.

Systems Co-op Student

May 2024 – Dec. 2024

BC Cancer Research Centre, Genome Sciences Centre

Vancouver, BC

- Spearheaded the development of a full-stack app for a PostgreSQL purchasing database serving 300+ users.
- Implemented authentication services in Express, ensuring secure access while integrating legacy LDAP services.
- Developed Python services to optimize account creation, management, and removal processes by over 50%.
- Managed and automated Active Directory and Linux server processes through Powershell and Bash scripting.

PROJECTS

VisuDocs | *React, Express, Redis, MongoDB, Firebase, WebSockets, Redux, JWT, Docker*

- Developed an intuitive, multi-user IDE supporting real-time coding between multiple users via WebSockets.
- Built an Express backend, achieving a sub-100ms synchronization latency between clients under normal usage.
- Designed caching layer with Redis and MongoDB, reducing latency in frequent code updates to database.
- Containerized the whole project with Docker Compose, allowing for consistent and easier deployment.

HireHigher | **Winning Project, LangaraHacks 2024** | *React, Django, Selenium, AWS, REST API*

- Led the development of an AI-powered interview tool, placing 1st out of 90+ participants at LangaraHacks.
- Built a Django REST API to integrate the LLM engine and frontend, enabling real-time analysis and feedback.
- Employed Selenium and OCR to parse LinkedIn profiles and user resumes parsing for personalized feedback.
- Deployed on an AWS EC2 instance during the hackathon demo, allowing for multiple concurrent users.

TCP Load Balancer | *C++, CMake, TCP/IP, Threads*

- Engineered a robust distributed load balancing architecture in C++, supporting 500+ simultaneous requests.
- Built a TCP server from scratch to accept incoming connections and forward traffic to the load balancer.
- Implemented round-robin routing with TCP sockets, enabling efficient client-server communication under load.
- Applied object-oriented and modular design principles to enable maintainable and extensible network components.

EDUCATION

Simon Fraser University

Burnaby, BC

Bachelor of Science (BSc.) in Computer Science

Expected Graduation: Jun. 2027

- Relevant Coursework: Software Engineering, Cybersecurity, Systems Programming
- Awards: President's Honour Roll, Dean's Honour Roll, Tadeusz Specht Memorial Scholarship