Bosco Ng

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EDUCATION

Queen's University — Kingston, ON
Bachelors (Honours) in Computer Science — *Sept. 2024 – May. 2028*

EXPERIENCE

Backend Developer — Aug 2025 – Present
https://lawtonica.ca/ - Lawtonica — *Kingston, ON*
- Scaled an **LLM-powered assistant** in an **early-stage AI civic-tech startup** using Node.js, TypeScript, PostgreSQL, and LangChain, boosting model accuracy from **70% → 94%** through optimized pipelines.
- Designed and deployed secure **APIs** with JWT authentication and Stripe integration, delivering reliable civic-tech services that make municipal by-laws accessible to residents, newcomers, and businesses.

Director of Information Technology — April 2025 – Present
https://compsa.ca/ - Queen's Computing Students' Association — *Kingston, ON*
- Lead a **14 member tech team** building and maintaining digital tools for **1,800+ students** at Queen's Computing, collaborating with COMPSA portfolios, faculty, professors, and the student community to deliver impactful, long-lasting products.
- Led the **3-week development** of a responsive **room booking system** for **500+ users**, featuring real-time availability, automated email reminders, and an admin panel for 24/7 study room access.
- **Built and maintain COMPSA's website and digital infrastructure**, including **Queen's Computing's official e-commerce merch store**, academic resources hub, events calendar, and internal job board.

Lead Developer — Jan. 2025 – April 2025
https://www.qweb.dev/ - Queen's Web Development — *Kingston, ON*
- Led a team of 4 developers in a **4-month agile sprint**, delivering a production-ready platform for a **600+ member student organization**.
- Represented the team at a **Demo Day**, presenting technical features and project outcomes to stakeholders & peers.

Software Engineer — Sept. 2024 – July 2025
https://qtedt.ca/ - Queens Themed Entertainment Development Team — *Kingston, ON*
- One of two software engineers leading QTEDT to qualify from **400+ participants** across **32 universities** in **North America** for the **2025 TMU Thrill Design Invitational**, advancing to **Universal Creative™**.
- Built full-stack systems including a **guest management platform** (Flask, SQLite, JS) with secure auth & real-time updates, and a **ride control platform** (Python, PyQt5) managing 19 carts with live tracking & safety.

PROJECTS

Room Booking System — Aug. 2025 – Sept. 2025
Queen's Themed Entertainment Development Team
- **Built a full-stack room booking system** for **1,800+ students (500+ users)** using Next.js 14, Supabase, & Resend, with real-time availability, timezone-aware scheduling, double-booking prevention, and admin dashboard.
- Designed a secure PostgreSQL schema with RLS, triggers, and optimized indexes, plus RESTful APIs handling timezone conversions, conflict resolution, and automated email notifications for confirmations and cancellations.

Unified Scheduling Platform - QWEB Development Winter Sprint '25 — Jan. 2025 – April 2025
Queen's Web Development
- Delivered a **unified scheduling platform** for a **600+ member student organization**, combining Calendly- and LettuceMeet-style functionality during a **4-month sprint.**
- Engineered **dual booking workflows** for interviews and team meetings, featuring a calendar view, Express.js RESTful API with 15+ endpoints, PostgreSQL with Row-Level Security, and responsive Tailwind CSS UI.

TECHNICAL SKILLS

Languages: TypeScript/JavaScript, Python, HTML, CSS, SQL
Frameworks/Libraries: React, Next.js, Node.js, Express, Flask, Tailwind CSS, Prisma (ORM), LangChain, PyQt5
Developer Tools: Git, AWS, PostgreSQL, Docker, REST API design, Redis, JWT authentication, OpenAI API