

# Nathan Carlo Maniego

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## Education

### University of Toronto

Sep 2023 – May 2027

*Honours B.Sc. in Computer Science with Co-op, Minor in Business & Mathematics*

- **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Database Systems, Software Design, Web Development, Artificial Intelligence

## Skills and Technologies

**Languages:** Python, Java, C++, TypeScript, JavaScript, SQL, C#, HTML/CSS, Bash, Assembly (RISC-V)

**Frameworks & Libraries:** React, Next.js, Node.js, Express, Flask, FastAPI, Spring Boot, Redux, TailwindCSS, ShadCN

**Databases & Cloud:** PostgreSQL, MySQL, Firebase, MongoDB, Supabase, AWS, Docker, GitHub Actions

**Developer Tools & Concepts:** Git, CI/CD, RESTful APIs, Linux, Agile/Scrum, System Design, Microservices

## Experience

### Software Engineer Intern

Jul 2025 – Aug 2025

*321DataPro Inc.*

- Automated **750+** daily customer records using a **serverless ETL pipeline** with **AWS Lambda**, **REST APIs**, and **PostgreSQL**
- Designed **RESTful endpoints** integrating **third-party APIs**, improving data consistency and query latency by **40%**
- Deployed an **NFC-based** rewards system on **AWS Lambda + PostgreSQL**, generating **\$12K+** yearly and **+52%** engagement
- Built an **IoT-enabled** attendance app using **React Native**, **Firebase** and **TypeScript**, saving **180+** staff hours annually

### Software Developer

May 2025 – Aug 2025

*Ontario Public Service (OPS Brainworks)*

- Developed **high-traffic** frontend modules using **React**, **TypeScript** and **TailwindCSS** serving **400+** OPS employees
- Implemented **JWT auth**, **file upload**, and **OpenAI-powered** content tools, boosting content collaboration by over **30%**
- Built a **CI/CD pipeline** using **GitHub Actions** automating testing, and deployment reducing post-release bugs below **3%**
- Optimized **Express.js + TypeScript** REST APIs with **Drizzle ORM** and **PostgreSQL/Supabase**, reducing latency by **40%**

### Partnerships Associate

Aug 2024 – Apr 2025

*UofT A.I*

- Assisted in organizing **Canada's largest student-run AI conference**, ConferenceX, with **150+** participants nationwide
- Collaborated with cross-functional teams of 15+ members to **secure \$15,000** in funding for successful conference deployment

### Web Developer

Feb 2022 – Aug 2022

*Empowered4x Business Development Centre*

- Developed and deployed Wordpress **front-end modules** (HTML, CSS, JavaScript, PHP), modernizing site architecture
- Optimized **website performance** and **SEO**, improving load speed by **45%** and boosting monthly traffic engagement

## Projects

### Dormigo - DeerHacks IV 🐘

- Worked in an **Agile, cross-functional team** to deliver a **FastAPI + React/Vite full stack app** in 36 hours with **DevOps** principles
- Developed a **REST API** with **FastAPI + PostgreSQL**, aggregating and serving **2K+** rental listings for university students
- Built **asynchronous scrapers** using **BeautifulSoup** and **Selenium**, consolidating listings from Zillow & Toronto Rentals

### MYSH Linux Shell 🐉

- Built a **fully functional Linux shell** in **C** supporting **command parsing**, **process management**, and **concurrent execution**
- Implemented **file system commands**, **environment variables**, and **dynamic memory management** for robust runtime handling
- Added **networking capabilities** with a **non-blocking server/client system** enabling **real-time multi-client messaging**