Nathanael Wung

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EDUCATION

University of Toronto

Bachelor of Applied Science (B.A.Sc) in Electrical & Computer Engineering + PEY Co-op   *Expected 2028*

- **Relevant Courses:** Programming Fundamentals (C++), Digital Systems (Verilog), Computer Organization (Assembly), Introduction to Databases (SQL), Applied Fundamentals of Deep Learning (Python), Algorithms and Data Structures, Operating Systems, Computer Networks I, Software Design and Communication

SKILLS

Languages & Frameworks: Python, C, C++, HTML, CSS, JavaScript, TypeScript, React, Tailwind CSS, Vue.js, Quasar Framework, Flask, MySQL, PostgreSQL, Next.js, Node.js, Verilog, Assembly, SwiftUI, PyTorch
Tools & Platforms: Linux, AWS, Firebase, Git, GitHub, Docker
Transferable: Critical Thinking, Communication, Collaboration · **Spoken Languages**: English, Chinese, Indonesian

EXPERIENCE

Front-End Web Developer   May 2024 – Aug 2024

Educa8.Info   *Jakarta, Indonesia*

- Developed dedicated school websites for students, teachers, parents, and administrators using Vue.js within the Quasar Framework, improving access and usability across user groups
- Collaborated with backend developers to resolve API and data sync issues, improving response times by 30% through payload optimization
- Validated user data interactions via MySQL and gathered client feedback to refine UX and ensure feature accuracy

LEADERSHIP

Digital Launchpad Associate   Apr 2025 – Present

You're Next Career Network   *Toronto, Canada*

- Developed an event sign-up platform with React and Firebase, streamlining registrations for 3,500+ students
- Built an event participation ranking using SQL queries to retrieve attendance data, boosting engagement by 55%
- Showcased sponsors on the main website, driving $120K+ in revenue to support student career development

Senior Full-Stack Developer   Jan 2025 – Apr 2025

Engineers Without Borders: University of Toronto Chapter   *Toronto, Canada*

- Created and optimized the chapter's website using React, TypeScript, and Node.js, improving load times by 25%
- Led and mentored a team of 6 developers, providing technical guidance and constructive feedback through code reviews and debugging sessions
- Built CI/CD pipelines to automate testing and deployment, enabling faster, more reliable releases

Full-Stack Developer   Oct 2024 – Apr 2025

University of Toronto Machine Intelligence Student Team   *Toronto, Canada*

- Built dynamic event and alumni pages with React, Next.js, Tailwind CSS, and TypeScript, enabling scalable, real-time content updates
- Implemented Firebase auth and content management for secure, real-time updates without backend servers
- Reduced manual updates by 70% through a self-serve admin dashboard, enabling non-technical team members to manage site content independently

PROJECTS

UofT Housing | GitHub | Website | Video Demo   May 2025 – Jun 2025

- Developed a React-based marketplace for UofT students to sublet housing, find roommates, and buy/sell furniture with image uploads, filters, and map search
- Implemented a Flask and PostgreSQL backend supporting authentication, real-time messaging, and email flows for verification and password resets
- Reduced listing load times by 60% via optimized Flask API calls and state logic, onboarding 100+ UofT students

The Daily Commute | GitHub   Jan 2025 – Apr 2025

- Created a real-time C++ map app with A* routing, traffic overlays, and transit layers using GTK and OSM
- Optimized multi-stop courier routing using multithreaded Dijkstra, greedy search, and 2-opt, ensuring legal paths under 50 seconds
- Integrated TomTom, OpenWeather, and OSM APIs to render real-time traffic, weather, and points of interest across 15+ global cities

Messaging Website | GitHub | Website | Video Demo   Jun 2024 – Aug 2024

- Built a real-time messaging platform using Vue.js within the Quasar Framework, featuring image sharing, message deletion, timestamps, and user status
- Used Firebase for secure authentication, real-time message syncing, and presence tracking across sessions
- Achieved adoption by 50+ users through intuitive design and seamless real-time performance