Nathanael Wung

(437) 849-3175 | nath.wung@mail.utoronto.ca | nathwung.vercel.app | LinkedIn | GitHub

Education

University of Toronto

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

- **Relevant Courses:** Computer Fundamentals, Programming Fundamentals, Software Design and Communication, Digital Systems, Computer Organization

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
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 forms.yourenext.ca by collaborating rotationally with other DLP associates
- Built a registration app for 300+ participants using Node.js and Firebase to streamline data management
- Contributed to raising $15K annually to support UofT engineering clubs and 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% and enhancing accessibility
- 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 – June 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, driving onboarding of 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 June 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 over 50 users through intuitive design and seamless real-time performance