Bradley Nguyen

647-686-9717 | bradleynguyen2004@gmail.com | in LinkedIn | ⏻ GitHub

EDUCATION

Carleton University, Bachelor of Computer Science, Honours Program (Co-op) Ottawa, ON
Software Engineering Stream - Major CGPA: 3.77/4.0 *2023 – 2027*

Relevant Coursework: Abstract Data Types and Algorithms, Object-Oriented Software Engineering, Computer Systems, Web Development, Programming Paradigms

EXPERIENCE

dynaCERT Inc. May 2025 - Present
Full Stack Developer Co-op | React, TypeScript, JavaScript, Node.js, MySQL, Docker, Postman *Toronto, ON*
- Spearheaded a full-stack industrial IoT dashboard system serving **120+ enterprise customers** and **450+ hydrogen generator units** globally, delivering real-time monitoring capabilities that reduced equipment downtime by **20%** and improved operational efficiency
- Architected scalable **React/TypeScript frontend** and **Node.js backend infrastructure** with **MySQL** database integration, supporting concurrent monitoring of **25+ critical parameters** (reactor states, temperatures, voltages, GPS telemetry) and reducing data processing latency by **65%**
- Developed advanced data visualization and export capabilities featuring **real-time charts**, **filtering systems**, and **Excel export functionality**, empowering field technicians and fleet managers to process service data **80% faster** and reducing manual reporting overhead

PROJECTS

Meido | GitHub | *Electron, JavaScript, Node.js, Gemini, OAuth, Google Cloud, Express.js* June. 2025
- **Winner at SolutionHacks** earning **$200** out of **100+ participants**
- Developed **full-stack** conversational AI desktop application using **Node.js/Express** backend and **Electron** frontend, integrating **3+ APIs** (**Google Gemini AI**, **Google Cloud TTS**, **MyAnimeList OAuth**) with advanced **text-to-speech (TTS)** capabilities
- Engineered intelligent **recommendation system** with custom **AI personality** using **prompt engineering** and **machine learning parameters**, implementing multi-provider **TTS synthesis** (**Google Cloud**, **Web Speech API**) with **selected voice** settings
- Implemented **secure API architecture** with **RESTful endpoints**, **OAuth 2.0 authentication**, and modular **service layers**, delivering **20+ API routes** for **chat**, **voice synthesis**, and **user data management**

Dumpster Diver | GitHub | *Python, JavaScript, TensorFlow, Keras, PHP, SQLite, HTML/CSS* Mar. 2025
- **Challenge Winner at cuHacking 6** earning **$300** out of **300+ participants**
- Built an end-to-end **automated waste sorting system** using **TensorFlow**, **Keras**, and **OpenCV**, integrated with **Arduino**-controlled hardware for real-time object detection and actuation
- Designed and implemented a **SQLite** database to log classification events, store system activity, and support backend queries for live dashboard updates
- Engineered a full-stack **IoT data pipeline**, enabling seamless communication between hardware, ML models, database, and front-end components

Playtopia | GitHub | *Starknet, React, Flask, OpenCV, Python, Tailwind, Vite, TypeScript, Cairo* Jan. 2025
- Won **2nd place** for the **Best Use of Starknet Challenge** at **uOttaHack 7**, earning **$2,200** out of **850+ participants** for developing a **blockchain-based game creation platform**
- Developed an **interactive game platform** with **Starknet smart contracts**, **React**, and **Python**, supporting **1000+ game sessions** and **100+ user-created levels**
- Integrated **OpenCV** for **real-time ball detection**, improving accuracy by **20%** and triggering **Starknet smart contracts** to reward players with **STRK tokens**
- Engineered **hardware-software integration** with **Python** for **game controllers** and **real-time blockchain updates**, achieving **100% accuracy** in tracking game outcomes.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, TypeScript, HTML/CSS
Frameworks/Libraries: React, Node.js, Express.js, Flask, Tailwind, Vite, MongoDB, Electron
Developer Tools: Git, GitHub, Docker, Postman, Google Cloud Platform, Microsoft Azure, Linux/Unix, Jira, Excel