Bryan-Elliott Tam

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Versatile Computer Engineer with a Mechanical Engineering background and keen interest in Web Technologies and Formal Methods.

SKILLS

- **Programming Languages**: TypeScript, Prolog, Rust, Python, Go, SMT-LIB, C++, Bash

- **Technologies**: Linux, Git, SPARQL, RDF, Svelte, Vue.js, React, Docker, Z3, MongoDB, Neo4j, pyQt, Node-RED, SolidWorks, Creo

- **Natural Languages**: French, English

WORK EXPERIENCES

Search Engine Developer (Research Assistant)   May 2022 — September 2022
Université Laval   *Sainte-Foy, Qc, Canada*

Developed a custom search engine to support architecture researchers in retrieving relevant literature, using Go, Python, and JavaScript.

Localization Systems Developer (Research Assistant)   May 2020 — September 2020
Université Laval   *Sainte-Foy, Qc, Canada*

Transformed a 2D excavator localization system into a 3D solution, increasing positional accuracy by integrating map data and turret orientation; developed using C++ and Python.

IoT and Web Developer   October 2018 — March 2020
Systèmes Vireo   *Sainte-Foy, Qc, Canada*

Designed and deployed an IoT system for managing hydroponic components in an urban agriculture startup, combining embedded systems (C++, PlatformIO, MQTT, KiCad) with full-stack development (React, TypeScript, Node.js, REST/GraphQL APIs, MongoDB, Node-RED); also led on-site installation and testing.

IoT Developer (Intern)   May 2018 — August 2018
Systèmes Vireo   *Sainte-Foy, Qc, Canada*

Designed electronic systems for hydroponic applications, including schematic design with KiCad and development of a management interface using Python and PyQt.

EDUCATION

Universiteit Gent   2022 — Present
Doctorate, Computer Science Engineering   *Gent, Belgium*

- Research Topic: Decentralized Web Querying of Knowledge Graphs Databases
- Additional Responsibilities:
  ‣ Teaching assistant for the Knowledge Graphs course
  ‣ Member of the program committee for the SEMANTiCS 2025 Developers Workshop
  ‣ Developper for the Comunica software, "[a] knowledge graph querying framework for JavaScript."

Université Laval   2020 — 2022
Master of Sciences, Computer Science   *Sainte-Foy, Qc, Canada*

- Thesis topic: Digital Twin to Improve Training and Performance of Forestry Operators

Université Laval   2015 — 2019
Bachelor of Engineering, Mechanical Engineering   *Sainte-Foy, Qc, Canada*