


Bryan-Elliott Tam

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Computer Engineer with a background in Mechanical Engineering and experience in full-stack development, IoT systems, and R&D. Currently pursuing a PhD in Computer Science Engineering at Universiteit Gent. Personal projects and open-source contributions available at <https://constraint-automaton.pp.ua>.

SKILLS

- **Programming Languages:** TypeScript, Prolog, Rust, Python, Go, SMT-LIB, C++, Bash, SPARQL
- **Technologies:** Linux, RDF, Svelte, Vue.js, React, Docker, MongoDB, Neo4j, SolidWorks, Creo
- **Natural Languages:** French (Native), English (Fluent), Dutch (Basic)

WORK EXPERIENCES

Decentralized Database Researcher
Universiteit Gent and Imec

September 2022 —
Gent, Belgium

Research decentralized web querying of knowledge graph databases, assist in the Knowledge Graphs course, supervised master's and job students, serve on the [SEMANTiCS 2025 Developers Workshop](#) committee, and contribute to the [Comunica](#) framework. Published peer-reviewed papers on decentralized knowledge graph querying with associated software implementation.

Search Engine Developer (Research Assistant)
Université Laval

May 2022 — September 2022
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)
Université Laval

May 2020 — September 2020
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
Systèmes Vireo

October 2018 — March 2020
Sainte-Foy, Qc, Canada

Led the development and deployment of an end-to-end IoT platform for urban agriculture at a startup, integrating embedded systems (C++, MQTT, KiCad) with full-stack web development (React, TypeScript, Node.js, MongoDB, Node-RED). Conducted on-site installation and testing, and collaborated with other departments.

IoT Developer (Intern)
Systèmes Vireo

May 2018 — August 2018
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
Doctorate, Computer Science Engineering

2022 — Present
Gent, Belgium

Université Laval
Master of Sciences, Computer Science

2020 — 2022
Sainte-Foy, Qc, Canada

Université Laval
Bachelor of Engineering, Mechanical Engineering

2015 — 2019
Sainte-Foy, Qc, Canada