

**JOB DESCRIPTION FOR:
2024 Fall Embedded Software Engineering Co-op**

JOB BRIEF:

Start Date: September 3rd, 2024

Duration: 8 months, with possible extension to 12 or 16 months

Enthusiastic engineering student trained in the fields of software systems with a passion for solving real industry problems with the use of sensors, embedded systems, and wireless M2M.

BACKGROUND:

Established in 2009, NZ Technologies Inc. (NZTech) works in the field of Human-Machine Interaction (HMI) with specialization in touchless sensors, 3D machine vision, and learning algorithms. NZTech's proprietary software and hardware are designed and built in-house at our office in Vancouver, BC. Our core products, TIPSO™ and HoverTap™ are proprietary technology that has evolved from the technical expertise and unique industrial experience of our engineering team, with significant feedback from our team of experienced advisors from the medical and elevator fields.

TIPSO™ is an award-winning Human-Machine Interaction (HMI) line of products for Interventional Radiologists and surgeons who need to efficiently interact with radiology images in the Operating Room (OR). It is designed by doctors, for doctors, to fit seamlessly in their challenging work environment. NZTech is continuously working with VGH and other hospitals to research, develop, and deploy new sensing technologies in the Operating Room to aid doctors in their critical work.

HoverTap™ Lift is a new way to touchlessly and safely use elevators. Easily retrofitted to existing buildings, the HoverTap™ panel allows for simple hand-wave and finger-point interactions - getting you to your destination without a single touch. With the danger of disease transmission becoming an everyday threat in the 'new normal', HoverTap™ eliminates high-touch surfaces in the elevator and keeps you and your loved ones safe.

MINIMUM JOB REQUIREMENTS:

- Currently enrolled in a program at an accredited Canadian post-secondary institution
- A Canadian citizen, permanent resident, or have refugee status
- Comfortable commuting to the job location
- Excellent verbal communication and writing skills
- Proven interpersonal and leadership skills

JOB DESCRIPTION:

An engineering student is desired to join the team and work on developing new embedded software applications and products.

The student's duties will fall under the following areas:

- Developing embedded applications for deployment on Windows and Linux
- Developing interactive Graphical User Interfaces and other user-facing applications
- Designing communication routines for embedded microcontrollers and microprocessors
- Revamping and extending existing network communication routines
- Optimizing existing codebase for real-time implementation
- Managing all software testing, stable build releases, and version control repositories
- Actively working with the team to brainstorm, discuss, and solve technical problems

SKILLS/EXPERIENCE:

The prospective candidate will have a background and interest in:

- Object-Oriented programming & Object-Oriented design principals in C, C++, Python, and Java
- Embedded data processing techniques and communication protocols
- Network coding and Server-client infrastructures
- Familiarity with Linux OS, bash scripting, and automation practices
- Collaborating via version control software (i.e. Mercurial, Git)
- Experience with encryption and network sniffing is an asset
- Experience with sensor processing algorithms is an asset
- Professional documentation practices
- Effective at independent problem-solving
- Good communication skills (informal and formal)

Located in the lively and energetic district of Vancouver, the office environment is young and friendly while full of exciting intellectual challenges. The ideal candidate would embrace the fast-paced start-up environment and be ready to learn new skills as needed. The company is going through rapid growth and varying schedules should be expected. The nature of this position offers outstanding opportunities for career growth and fun challenges outside of a typical 9-to-5 job. Join us if you think you are the right candidate!

Please submit **both your resume and cover letter** to naomi@nztech.ca with the job title as the subject of the email. A portfolio would be an asset. We will contact you if we see a good fit between the candidate and the position.