

JOB DESCRIPTION FOR:
LEAD EMBEDDED SOFTWARE ENGINEER

ABOUT NZ TECHNOLOGIES INC:

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.

JOB DESCRIPTION:

Application Deadline: November 15th, 2023

Job Types: Full-time

Start Date: ASAP

Do you want to join a rapidly growing team that is working on cutting-edge technology and deploying products in multiple industries? NZTech is looking for a passionate engineer that is keen on solving dynamic problems and driving meaningful changes in our products & offerings. The position will focus on leading the software and firmware development within the overall engineering team – including developing and managing software codebases, working with embedded hardware and related communication protocols, and developing and deploying for Windows, Linux, and mobile applications. In addition, the position requires an individual who is able to professionally represent the company and support products at remote demonstrations, evaluations, and installations either locally in Canada or abroad globally.

The successful candidate will work closely with the engineering team in not only software/firmware development, but also embedded microelectronics and sensors. The position not only offers tremendous learning opportunities, but also great potential for career advancement. Most importantly, you will join a high-tech start-up to make a direct impact on the company's growth.

DUTIES/RESPONSIBILITIES:

- Develop and manage embedded software for embedded Linux controllers and microcontrollers
- Develop and enhance the current NZTech-developed electric field system design and hardware
- Develop and manage Linux and Windows software applications that interact with NZTech products
- Developing communication protocols for embedded hardware interfaces (i.e., USB, I2C, SPI, CAN, etc.)
- Work with NZTech-developed sensors and hardware to prototype new product features
- Work directly with R&D personnel to develop and test sensor processing and machine learning algorithms
- Image enhancement for medical Images using signal processing and machine learning approaches
- Customize and configure demonstration units for customer projects
- Configure, troubleshoot, and support product evaluations and installations
- Manage updates, bug-fixes, software testing, and Git repositories for new hardware and software releases
- Develop a strong technical understanding of NZTech products and how they are deployed
- Actively working with the team to brainstorm, discuss, and solve technical problems

MINIMUM JOB REQUIREMENTS:

The prospective candidate should have the following skills/experience:

- A Master degree or PH.D in Electronic/Computer Engineering
- Minimum 7 years of relevant experience in embedded software development
- Good Knowledge of network development (sockets, TCP/IP)
- Good Knowledge of embedded protocols (I2C, SPI, and USB)
- Strong scripting experience with Python/Bash/C/C++/Java/C#
- Experience in developing for ARM processors
- Expertise in Source code version control (Git)
- Developing, deploying, and testing embedded applications
- Experience working in the Elevator industry and being familiar with Elevator's controller system design
- Have a good understanding of electric field system design and capacitive sensing
- Integrating and processing sensor data in real-time embedded applications
- Comfortable using basic hand tools and working with embedded electronics
- Proficiency in project management methodologies and tools
- Strong interpersonal communication and professional documentation skills
- Experience with sensor, Image and ultra sound processing algorithms
- High level of professionalism and an ability to communicate technology know-how to external personnel
- An excellent command of written and spoken English
- Strong interpersonal, follow-up, and documentation skills
- Excellent analytical and debugging skills and the ability to proactively solve issues
- Strong Documentation and clean coding skills

Please submit **both your resume and cover letter** to gina@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.