



MagnetTx

# Employment Opportunity

**Employer:** MagnetTx Oncology Solutions

**Job Title:** Software Developer

**Position:** Full Time

**Start Date:** ASAP

**Primary Location**

- Edmonton.AB.Canada

**Contact**

- [Careers@magnettx.com](mailto:Careers@magnettx.com)

## Job Opportunity

MagnetTx is seeking a **Software Developer** to work on new technology for cancer patients. The team at the Cross Cancer Institute in Edmonton, AB is working on a revolutionary way to treat cancer patients. This team is developing a treatment unit that combines a Linear Accelerator (Linac) and a Magnetic Resonance Imaging (MRI) system. <http://mp.med.ualberta.ca/linac-mr/> Software Developers are key members of this Linac-MR development project team. The project will build, test, evaluate and implement a new hybrid radiotherapy device that combines a Linac and MRI into clinical practice. As a software developer, you will be part of a team of software developers who are responsible for the design and build of the electronic interface and controls for this new hybrid Linac-MR.

## Essential Duties and Responsibilities

- Software development, design, testing, and software design documentation
- Design and build software components to interface with and control the Linac-MR using software engineering techniques, design methodologies and software development practices
- Participate in the establishment of the QMS (Quality Management System) in the organization by defining and executing software supporting processes covering the full life-cycle of the product
- Work within a team of developers to ensure compatibility and seamless interaction between the components (Graphical User Interface, In-Room Graphical Interface, Master Control System, Internal communication between the LMR and Oncology Information System (ARIA RO), Control systems for MLC, Dosimetry and Motor Sub-systems, Control systems for Radiation Production, Control of MR image acquisition

## Qualifications and Desired Skills Required for Position

- BSc or MSc in Software Engineering or Computer Science and a minimum 5 years of industry experience in C++ development.
- Experience in software engineering techniques, design methodologies and software development practices (e.g. Waterfall, Agile)
- Experience in object-oriented concepts and design with knowledge of software development patterns and practices.
- Experience with network programming, and/or knowledge of TCP/IP.
- Experience with DICOM standard and image processing techniques (MR or CT).
- Minimum 2 years of industry experience with Visual Studio, C#, Net Framework, WPF/MVVM
- Experience with real time applications is an asset as is experience with medical imaging software
- User interface application design experience preferred
- Minimum 5 years Real-Time operating systems work (e.g. Board support package or device driver development); development tools architecture and configuration (RTX, Visual Studio) preferred.
- DICOM imaging standard and image processing (MR or CT) experience is preferred.
- Experience in the use of emulators, logic analyzers and software probing equipment are an asset
- Knowledge of communication protocols such as Ethernet, RS 232, CANbus is a plus