



**Diagnostics Inc.**

**XLV Diagnostics Job No #1005, Toronto ON - M4N**

**Job Title :** Software Architect

**The Company:**

XLV Diagnostics Inc. is a growing startup bringing high quality, low cost, x-ray technology to market. Our core technology is our detector based around the novel X-Ray Light Valve (XLV,) which creates very high quality images at a low cost. Our first product, a full sized mammography machine, is nearing release with upcoming clinical trials. We are always looking for talented multi-disciplinary engineers to join our team and drive forward our cutting edge medical imaging technology.

**The Opportunity:**

XLV Diagnostics Inc. has many engineering opportunities, including work in optics, electronics, mechanics, and software design. We are currently actively looking for a Software Architect to harden and enhance our front end. In this role you would own the software design process, push forward changes at all levels of software design and make sure required documentation is kept. While XLV expects a clean software design process, this is balanced against the rapid development required in a startup. In order to achieve this the software team works closely with the electronic engineers, mechanical engineers, physicists, technicians and quality assurance.

The software work consists of interface modifications and updates, complex and challenging image processing, optimizations and parallelizations and a very quick turn around on new features. Interface modifications exist in the form of our service GUI, the TCP/IP layer between the x86 software and our embedded micro, and to other assemblies. Image processing includes regular pixel based image calibration, novel non-linear calibration as well our in house image analysis tools. Optimizations include in code optimizations, as well as moving specific work to DSPs or other software environments.

XLV's engineering group is a small dedicated team that is growing rapidly. In this environment your work will be meaningful and have a significant impact with the rest of the team. As we bring our product to market, your contributions will improve how healthcare is delivered around the world.

**Experience Level:**

- C language family coding - 7+ years
- C# and .net experience - 4+ years
- A language of your choice - 3+ years.

**Required Skills:**

- GUI designed with C# in Visual Studio
- Manipulation of large data sets
- Enthusiastic about version control
- Understanding of TCP/IP
- Good documentation practices

**Desired Skills:**

- Knowledgeable in realtime OS'
- Image processing
- Experience with XML
- C language micro-coding experience
- Understanding of Verilog and RTL design
- Comprehension of the Fourier domain
- Experience with trace-ability
- Worked with Matlab or Octave
- Familiarity with any of IEC 62304, IEC 60601, ISO 13485, or ISO 14971

Work with XLV Diagnostics may involve some travel to meet with vendors and visit other XLV sites. Address all applications to Peter Oakham, Chief Engineer - [peter@xlvdiagnostics.com](mailto:peter@xlvdiagnostics.com)