

# Dylan Hoen

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## Objective

I am seeking full time employment, based near Victoria, BC, Canada, preferably in an electrical engineering or programming related position.

## Education

- Bachelor of electrical engineering, DSP option, plus a minor in computer science from the University of Victoria, graduated June 2007 (Almost equivalent to a major in computer science with overlapping classes)
  - Made the Dean's List (top 10%) in first year engineering
- Completed the 600-hour computer assisted drafting career preparation diploma program at Mount Douglas Senior Secondary School in Victoria, graduated June 2000
- Did well in various math and physics contests, leading to scholarships, including:
  - Placed in the top 7 on Vancouver Island on the **Euclid Mathematics Contest** (1999-2000), which lead to a \$1,000 scholarship
  - Placed 4th in BC and 34th in Canada on the **Sir Isaac Newton physics exam** (1999-2000)

## Work Experience

- **Contract Java programmer** for a University of Victoria computer science grad student, Victoria, BC, October 2009 to July 2010
  - Modified some java programs and created others from scratch
  - Communicated mostly through email and Skype, and met in person every couple weeks
  - Used the Eclipse and NetBeans IDEs
- **Electrical engineer and programmer at Reach Technologies Inc.**, Victoria, BC, February 2007 to April 2009, <http://www.reachtest.com/>
  - Worked on software applications that control custom PCI card based hardware products, mostly using the Delphi language in the Borland Developer Studio 2006 IDE
  - Wrote example SDK applications using ActiveX and DotNet components in Delphi, Visual C++, C#, J#, Visual Basic, ATEasy, LabWindows, and LabView
  - Tested software and fixed bugs
  - Assisted in the circuit design of a 32-channel analog recorder PCIe card
  - Made a GUI to control the 32-channel analog recorder and converted it into a signal analyzer with level bar graphs, windowed level history graphs, a triggerable multi-channel oscilloscope, a multi-channel FFT graph, and a single-channel FFT analyzer
  - Used this software analyzer and an external signal analyzer to calculate a list of specifications for the product
  - Used Nvidia's CUDA SDK for GPU accelerated FFTs
  - Did circuit design and board layout of an ultra-capacitor based uninterruptible power supply for a ruggedized air-born IRIG Time Code generator, using Altium Designer
  - Soldered together, constructed, and tested prototypes and production units
  - Picked out and ordered electrical components from Digikey and other suppliers
  - Picked out and ordered computer components for workstations and PC based production units
  - Installed operating systems and software on PC-based production units
  - Traveled to, and co-manned booths, at trade shows
  - Wrote software and product manuals

## Work Experience (Continued)

- **Visual C++ and Java programmer at Pixpo Technologies**, Victoria, BC, August 2005 to August 2006, <http://www.mixpo.com/> (Company is completely different today)
  - Created a search engine that divided the work of searching between the Java based central server and the C++ based media broadcasting clients.
  - Created a search engine that found broadcasters with similar content to the current one being viewed.
  - Used the Eclipse Java and Visual Studio Visual C++ IDEs
  - Used Tortise SVN for source control
- **Visual C++ programmer at the USNR Optimization Division**, Parksville, BC, January to April, 2005, <http://www.usnr.com/>
  - Added features to the orthographic and 3D log viewing program that allowed for scrolling, zooming, and measuring on their 2D views.
  - Tracked down and fixed bugs.
  - Cleaned up code by moving various implementations of the same functionality from the child classes to a standard implementation in the parent class.
  - Learned a lot about C++ programming, debugging in Visual C++ .Net, using Visual Source Safe to keep track of code revisions, and writing readable code.
- **UVic Autonomous Underwater Vehicle Team member**, September 2003 to August 2007, <http://www.auvic.uvic.ca/>
  - Worked on vision system, sonar system, battery system, control system, and traveled to the competition site in San Diego, CA, USA

## Skills and Qualifications

### • Computer Related:

- **Languages** -Java, C, C++, Delphi, C#, Perl, CUDA, QBASIC, HTML, PHP, MYSQL, Postgres SQL, Motorola 6811 assembly, OpenGL, Visual Basic, Java Script, Csh script, VHDL, LabView
- **IDEs** -Eclipse, Visual Studio, Borland Developer Studio, Text Pad, Matlab, Altium Designer (Protel), ISE Tools, ATEasy, LabView, Lab Windows
- **Operating Systems** -Windows 95/98/2000/XP, MacOS 7.x, Linux, Unix
- **Software** -Photoshop, Paint Shop Pro, Beyond Compare, MS PowerPoint, MS Word, MS Excel, Claris Works, Micro Cap, MiniCAD, VectorWorks, RenderWorks, Artlantis, AutoCAD, VisualCAD
- **PC Hardware** -Comprehensive, up-to-date knowledge of PC hardware components.

### • Electronics Related:

- **Skills** -Reading, understanding and designing schematics  
-Simulating circuits with Micro Cap  
-PCB layout in Altium Designer (Protel) or generic CAD programs  
-Interfacing Pic, 6811, and AVR micro-controllers with digital and analog circuits
- **Equipment** -Multimeters  
-Oscilloscopes  
-Spectrum Analyzers  
-PDR IR BGA Rework Stations

### • Miscellaneous

- Canadian Citizen (Born and raised in Victoria, British Columbia, Canada)
- Open Water SCUBA Diver's License

References are available upon request