

# DEVON STOPPS

• devon@stopps.ca •

## Objective

To gain experience with project-based engineering in the business world.

## Engineering Skills

- Project Management and Economics
- Computer analysis using MATLAB, Origin, Maple, Mathematica, Excel
- Measurement, Instrumentation and Experiment Design and Data Analysis.
- Design experience with:
  - Agilent Advanced Design System & Cadence Virtuoso/OrCAD electronics design systems
  - National LabView & Instruments Electronics Workbench Multisim
  - Solid Edge CAD
- Programming using C, java, and assembler.
- Machine Shop and Welding Experience
- Computer Productivity and Expert Troubleshooting Skills

## Education

BSCSE in Engineering Physics and Electrical  
*Queens University*

September 2003 - December 2007

*Principal's Scholarship*

*Queen Elizabeth II "Aiming for the Top" Scholarship*

## Projects

*General Manger*

September 2007 - May 2008

*Electrical Manager*

September 2005 - September 2007

Queens Fuel Cell Team

*engsoc.queensu.ca/fuelcell*

Responsible for managing team dynamics; ensuring designs meet specifications; maintaining safe electrical design practices; communication with sub-teams and sponsors; and the design and implementation of an integrated power control system, consisting of storage, delivery and fuel cell control aspects.

*High Current Charge Controller for Hybrid-Electric Vehicles*  
Phys 455 Thesis

September 2006 - May 2007

This thesis concentrates on the ground up design of a precision, high-current, rapid battery charger for use in hybrid-electric vehicles. This microcontroller based design, with individual battery pack statistic monitoring, allows charging of many battery chemistries at high rates while focussing on pack longevity.

*Rubidium Atomic Clock*  
Phys 450 Design Project

September 2006 - May 2007

*www.devonstopps.com/thesis*

Responsible for the design and implementation of the microwave frequency synthesis and feedback system; including PCB, waveguide, oscillator and frequency divider.

## **Experience**

*Dr. R. Knobel - Nanoscale Devices Laboratory*  
*Queen's University*  
*Department of Physics*  
64 Bader Lane, Kingston, Ontario  
K7L 3N6 (613) 533-2672

January 2008 - present  
Low Temperature Physics  
[www.physics.queensu.ca/~knobel/](http://www.physics.queensu.ca/~knobel/)

This role incorporates the refurbishment and upgrade of a millikelvin helium dilution refrigeration system for use with ongoing nanoscale single electron transistor research. This includes development of experimental systems – part design using CAD; transmission line electromagnetics simulations with ADS; low temperature, high frequency heat sink design; photolithography and cleanroom work.

*Queen's University*  
*Department of Physics*  
64 Bader Lane, Kingston, Ontario  
K7L 3N6 (613) 533-2692

May 2007 - September 2008  
Engineering Technologist

The function of this posting was the development and updating of rugged experimental systems used in the 4<sup>th</sup> year teaching laboratory including: development of hardware and linux-based software for laser CCD image capture and processing; labview software to automate data acquisition using rotational stages and microwave detectors; design of low-noise, low voltage data acquisition interfaces for low-temperature physics; repair of several system-voltmeters, oscilloscopes and stroboscopes; as well as the selection of a new digital monochromator.

*Northumberland County*  
*Transportation and Waste Department*  
860 William St, Cobourg, Ontario  
K9A 3A9 (800) 354-7050

May 2006 - Sept 2006  
Project Optimization Engineering

This position spearheaded the optimization, and marketing, of proposed updates to the local commingled recycling program. The project concentrated on improving diversion rates and cutting costs, while mitigating negative public reaction to new limitations introduced into the previous excessively broad, yet effective, program.

*DPI Computer Services*  
1092 Ontario St. Cobourg, Ontario  
K9A 3C7

June 2001 - present  
Owner

This entrepreneurial business provides onsite services to home and small business clients. These services include networking, troubleshooting and support, upgrades, large system integration, small programming projects, and training. The responsibilities of running a business also included communications and customer relations, marketing, billing, accounting, and project estimation.