

# Jake Nielsen

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## Objective

To obtain a position in software development that will foster robustness in my coding style and enrich my knowledge of the field of computer science.

## Summary of Qualifications

- Significant experience with VB.NET, C++, and C
- Familiar with Assembly, Python, Java, and Scheme
- Experience in the design of simple control systems
- Familiar with I<sup>2</sup>C communication protocol
- Experience with AVR microcontrollers
- Ability to work independently as well as on a team

## Work Experience

### Electronic/Software Designer

May 2010 to December 2010

University of Waterloo: Waterloo, Ontario

- Created drive circuit for controlling 200 stepper motors and reading from 200 pressure sensors via I<sup>2</sup>C
- Implemented firmware, software, and GUI for an experimental CNC lathe
- Produced firmware, software and pendant controller for a 3D scanner
- Received an outstanding on the work report evaluation
- Currently volunteering time to fix bugs and add functionality

### Part-time Sales Floor Staff

October 2006 to August 2009

Len's Mill Store: Cambridge, Ontario

- Provided friendly and high-quality customer service
- Constructively dealt with customer complaints
- Worked flexible hours and roles both on the sales floor as well as on the cash register
- Helped to maintain a clean and friendly work environment

## Education

### **Bachelor of Applied Science**

September 2009 - present

Mechatronic Engineering

University of Waterloo; Waterloo, Ontario

- Dean's Honour Roll 2009
- **Relevant Courses:** Designing Functional Programs, Elementary Algorithm Design and Data Abstraction, RCL Circuits, Ordinary Differential Equations, Mechanics of Deformable Solids, Physics: Dynamics, Microcontrollers and Digital Logic.

## Interests and Activities

- Open GL and GLSL experimentation in C++
- Experimentation with Arduino microcontroller
- French horn and guitar