**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 I2C 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 I2C
* 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
* Still putting in volunteer 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