# Jake Nielsen

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N3C 1Y5

# Skills

Significant experience with VB.NET, C++, and C

Some work with Assembly, Python, Java, and Scheme

Experience with simple control systems

Familiar with I2C communication protocol

Experience with AVR microcontrollers

# Work Experience

Electronic/Software Designer: May 2010 to December 2010

University of Waterloo; Waterloo, Ontario

Designed drive circuit for controlling 200 stepper motors and reading from 200 pressure sensors via I2C

Designed firmware, software, and GUI for an experimental CNC lathe

Designed similar package for a 3D scanner

Received an outstanding on the work report evaluation

Sales Floor Staff: Part Time October 2006 to August 2009

Len's Mill Store; Cambridge, Ontario

Provided customer service

Cleaned the store frequently

# Education

Candidate for Bachelor of Applied Science: Mechatronic Engineering

University of Waterloo

Sept 2009 - present

Dean's Honour Roll 2009

Relevant Courses: Designing Functional Programs, Elementary Algorithm Design and Data Abstraction, Linear Algebra 1, Linear algebra 2, Calculus 1, Calculus 2, RCL Circuits, Ordinary Differential Equations, Mechanics of Deformable Solids, Physics: Dynamics, Microcontrollers and Digital Logic.

# General Interest

Open GL and GLSL experimentation in C++

Experimentation with Arduino microcontroller