Jake Nielsen

*3B Mechatronics Engineering*

# Skills

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i [*github.com/jknielse*](http://github.com/jknielse)

**Languages Objective-C**, C, C++, Bash, Python, Lua, Javascript, Scheme, Assembly

**Software Git**, SVN, Visual Studio, **X-Code**, Vim, Windows, Linux, Mac

# Work Experience

Sept 2012 - Feb 2013 **Mobile Software Engineering**,

*Rebellion Media Inc.*, Waterloo.

iOS development

Backend development using nodejs and mongoose Received an **outstanding** on work evaluation

Jan 2012 - Apr 2012 **Cofounder and Software Developer**,

*Crouton Labs inc*, Waterloo.

Developing iOS applications for restaurants Sales and marketing

May 2011 - Aug 2011 **Manufacturing Software Engineering**,

*Sandvine Inc.*, Waterloo.

Writing and maintaining test scripts for quality control Troubleshooting hardware in the event of test failures

Configuring and uploading harddisk images to Sandvine’s Policy Traffic Switches

May 2010 - Aug 2010

Sept 2010 - Dec 2010

**Software and Hardware Developer**,

### *University of Waterloo*.

Developing hardware and firmware for an exparimental configurable 3D surface Developing firmware, drivers, and software for an experimental 3-axis CNC lathe Producing firmware, software and hand-held controller for a 3D scanner Received an **outstanding** on work evaluation

# Projects and Competitions

**Autonomous Boat** Designed the hardware, sofware, and PID control system for a boat capable of autonomously navigating a water-course without hitting the walls of the course

**Computing Collective** (Co-founder)

**VeloCity Entrepreneurial**

**Incubator**

Worked on start-up that commercializes the grid computing space, winners of the Velocity Venture Fund competition.

Involved in the software development of said platform in python.

Returning resident at VeloCity, which helps students who are working on start-ups, by providing funding, mentorship and a collaborative environment.

Education

2009 - Present **Candidate for Bachelor of Applied Sciences in Honours Mechatronics Engineering**,

### *University of Waterloo*.

Relevant Courses: Designing Functional Programs, RTOS, Sensors and Instrumentation, Elementary Algorithm Design and Data Abstraction, RCL Circuits, Ordinary Differential Equations, Mechanics of Deformable Solids, Physics: Dynamics, Microcontrollers and Digital Logic, Control Systems