

# Jake Nielsen

3B Mechatronics Engineering

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## Skills

**Languages** Objective-C, C, C++, Bash, Python, Lua, Javascript, Scheme, Assembly  
**Software** Git, SVN, Visual Studio, X-Code, Vim, Windows, Linux, Mac

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## Work Experience

Sept 2012 - Feb 2012 **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 **Software and Hardware Developer,**  
*University of Waterloo.*

Sept 2010 - Dec 2010 Developing hardware and firmware for an experimental 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

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## Projects and Competitions

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

**Computing Collective** Worked on start-up that commercializes the grid computing space, winners of the Velocity Venture Fund competition.  
(Co-founder) Involved in the software development of said platform in python.

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

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## 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