

# Alex Ray

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## Objective

A challenging summer internship at a company on the cutting edge of new technology where I can bring passion into solving problems that will improve peoples' lives.

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## Education

2007-2012 (expected) **Computer Engineering & Textile Engineering, NCSU, Raleigh, NC**, Overall & Major GPA: 4.0.

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## Computer Skills & Languages

Programming: C, Assembly, Verilog, Go, VBA, Java  
Parallelization: OpenMP, PThreads, MPI, OpenCL  
Scripting: Python, Bash, SQL, Tcsh, Vim  
Software: Git, Subversion, Apache, PostgreSQL, L<sup>A</sup>T<sub>E</sub>X, Linux, OS X, Windows

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## Experience

- 1 Semester **Teaching Assistant-Principles of Electrical Engineering, Dr. Masnari,, NCSU.**
  - Assisted students with homework and example problems & Provided supplemental instructional support
- 1 Summer **Cisco Choice Internship, Cisco, Morrisville, NC.**
  - Developed low-level tools to aid in the debugging of enterprise-domain routers.
  - Implemented device drivers to monitor performance events on chip
- 2 Semesters **Computational Software Developer, Optoelectronics & Lightwave Engineering Group,, NCSU.**
  - National Science Foundation funded Research Project
  - Developed modelling software to simulate and verify experimental finding
  - Optimize runtime using multithreading, multiprocessing and GPU computing on multiple platforms
- 1 Summer **Open Source Developer, Google Summer of Code, Amsterdam, Netherlands, remote.**
  - Integrate hardware drivers for on-processor performance registers
  - Develop unit tests and integrate them into the existing unit test framework
  - Support the software community and other developers throughout the project
- 2 Years **Computational Lab Assistant, Computational Chemistry Research Group,, NCSU.**
  - Maintain and update Linux computational lab machines' hardware and software
  - Build, install, test and debug new software, contributing back to the community where applicable
  - Develop utility programs and scripts to aid lab members and automate/manage simulations

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## Relevant Extracurriculars

- Active Member & Presenter for the NCSU Linux User Group
- Lead Software Developer - North Carolina Aerial Robotics Competition Team
- Triangle Arduino Hackers - local microcontroller development group
- Contributor to open source projects - see <http://github.com/ajray>