Alex Ray

Alex Ray's Resume

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Objective

A challenging fall internship developing the cutting edge of massively scalable computer systems, where I can bring passion and expertise into solving problems that will improve peoples' lives. Also: developing on coreboot, Plan 9, or Linux.

Education

2007-2012 (expected) **Computer Engineering & Textile Engineering, NCSU**, *Raleigh, NC*, GPA: 3.7.

Computer Skills & Languages

Programming: Go, C, Python, Bash, Tcsh, Assembly, Verilog, SQL, VBA

Parallelization: OpenMP, PThreads, MPI, OpenCL, Go; LSF, Beowulf

Software: Git, Subversion, Mercurial; LaTeX; Linux, OS X, Plan 9; GDB, Vim, Autotools, Make

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

Relevant Extracurriculars

- Officer, Hacker & 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
- Significant Experience with: Grub2, Dracut/Initramfs/Initrd, Linux Kernel