

Ryan W. Going

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Education

North Carolina State University, Raleigh, NC, USA
B.S. Electrical Engineering, May 2009 Currently 4.0 CGPA
B.S. Applied Mathematics, May 2009 Currently 4.0 CGPA

Research/Teaching Experience

Undergraduate Researcher (Advisor: Dr. M. J. Escuti, mjescuti@ncsu.edu) 2006-Present
OLEG (Optoelectronics and Lightwave Engineering Group) NC State University

- Analytic modeling of spheroidal dielectrics in highly non-uniform optical traps using Maxwell stress tensor technique.
- Assist in development of liquid crystal display technology through fabrication and characterization of liquid crystal devices

Summer Researcher (Advisor: Dr. A. Sanders, aric.sanders@nist.gov) 2008
NIST (National Institute for Standards and Technology) Boulder, CO, USA

- Characterized GaN nanowires using UV photoluminescence spectra and scanning electron microscope images.
- Developed optical feedback algorithm for use with near-field scanning optical microscope for spatially-resolved photoluminescence spectra of single GaN nanowires.

Teaching Assistant (Advisor: Mrs. C. W. Townsend, cwt@ncsu.edu) 2008
Undergraduate Problem Laboratory, NC State University

- Introductory circuits problem lab for electrical and computer engineering students
- Duties included supplemental lecture and one-on-one instruction with students

Industry Experience

Summer Intern (Manager: Mr. G. M. Wrayno, wrayno@us.ibm.com, Mr. C. Meyers)
2005, 2006
IBM (International Business Machines) Durham, NC, USA

- Developed prototype system monitoring setup utilizing open-source software Nagios first summer.
- Integrated monitoring system into internal site network second summer, built on the prototype developed the first summer.
- Common tasks involved researching software tools, developing customized system tools, and writing documentation.

Skills

- Electronics Lab
- Clean Room Micro-fabrication and Characterization of Silicon
- Atomic Force Microscope
- Scanning Electron Microscope
- Matlab and Mathematica
- C/C++, Java
- Word, Excel, PowerPoint
- Optics Lab
- Near-field Scanning Optical Microscope
- Python, Perl, BASH, PHP, Java Script
- HTML, CSS
- OrCad

Honors/Leadership

- Astronaut Scholar, 2007-2009
- Marshall Scholarship Finalist, 2008
- Goldwater Scholarship Honorable Mention, 2008
- Phi Kappa Phi, 2008
- Eta Kappa Nu, 2008
- NC State Undergraduate Research Award, 2007
- Phi Beta Kappa, 2007
- Amnesty International at NC State University, Student Chapter President, 2006-2008
- Boy Scouts of America, Rank of Eagle, 2005

Publications

- R. W. Going, B. L. Conover, and M. J. Escuti, "Electrostatic force and torque description of generalized spheroidal particles in optical landscapes," *Proceedings of the SPIE – Optics & Photonics Conference*, vol. 7038, num. 703880, 2008.