



Resume Sample - Graduate Student - Engineering

AUBURN UNIVERSITY CAREER CENTER
YOUR CAREER. OUR MISSION
303 Martin Hall | 334.844.4744 | auburn.edu/career

Margins: .50"
Name: Calibri 22 pt
Section Headings: Calibri 11 pt
Content: Calibri 11 pt

Mark MacErneny

123 Thermo Way
Auburn, AL 36830

(555) 555-5309
mmm123@auburn.edu

EDUCATION

- Ph.D. Candidate, Mechanical Engineering** Expected May 2017
Auburn University Auburn, AL
Dissertation title: "Numerical Study of Natural Convection in Solar Thermal Storage Vessels"
- Master of Science in Mechanical Engineering** May 2012
Auburn University Auburn, AL
Thesis title: "Low Pressure Plasma Synthesis of Crystalline Silicon Nanoparticles"
- Bachelor of Mechanical Engineering** May 2010
Clemson University Clemson, SC

RESEARCH EXPERIENCE

- Graduate Research Assistant, Particle Technology Lab** August 2012-present
Samuel Ginn College of Engineering; Auburn University Auburn, AL
 - Administer experimental and theoretical studies on the filtration of fractal aggregates
 - Sustain NSF funded research on real-time structure and mass measurements for agglomerated nanoparticles
 - Collaborate with Donaldson Company and 3M through Center for Filtration Research (CFR) to study mass loading and pressure drop on Nanofiber filters
 - Developing new modules for and maintaining a web-based software on filter performance evaluation, dust cake loading and filter pleating design
 - Conducting numerical study on diffusion-limited aggregation of nanoparticles in laminar shear and found the relation between velocity gradient and aggregate fractal dimension
- Research Assistant, High Temperature and Plasma Laboratory** August 2010-May 2012
Samuel Ginn College of Engineering; Auburn University Auburn, AL
 - Designed and optimized a low pressure silane plasma reactor to synthesize single crystal cube shaped silicon nanoparticles for electronic device applications
 - Examined and categorized nanoparticles on electron and atomic force microscopes
 - Characterized plasma particle system using electrostatic capacitance probe, white light absorption spectroscopy, optical emission spectroscopy and laser light scattering
 - Assembled and maintained vacuum equipment for the experimental setup
 - Performed experiments for varying plasma conditions

TEACHING EXPERIENCE

- Teaching Assistant, Graduate Level Course-Advanced Particle Engineering** January 2014-May 2014
Samuel Ginn College of Engineering; Auburn University Auburn, AL
 - Conducted office hours to help students understand and solve homework problems
 - Prepared and graded homework solutions
 - Wrote weekly quizzes, posted their solutions online, graded quizzes and exams, kept record of the scores using Excel
 - Collaborated with Professors and other TA's on course material and grading policies

PATENTS

- Integrated input roller having a rotary mass actuator Filed: April 2014
- Handheld device having multiple localized force feedback Filed: March 2014
- Tag for facilitating interaction with a wireless communication device Filed: March 2014



Resume Sample

AUBURN UNIVERSITY CAREER CENTER
YOUR CAREER. OUR MISSION

303 Martin Hall | 334.844.4744 | auburn.edu/career

Mark MacEnery
(Page 2)

AWARDS & FUNDING

National Science Foundation Graduate Research Fellowship	May 2014
Mechanical Engineering Advanced Study Grant	August 2012-May 2013
Recognized as a "Ph.D. Student of Promise" by the American Society of Mechanical Engineers, nominated by Dr. Elle Lectric	June 2013
Alabama Society of Professional Engineers Graduate Student Scholarship	August 2010-May 2012

SCHOLARSHIP

Publications

Journal publications

- **MacEnery, Mark**, John Author, Anne Gineer. Journal article title. International Journal of Mechanical Engineering, 2014; Under review.
- **MacEnery, Mark**, Aubie Article, Grant Riter. Journal article title. International Journal of Mechanical Engineering, 2012; 126 (56-70): 1020-1056
- **MacEnery, Mark**, Rita Journal, Andy Mann. Journal article title. International Journal of Mechanical Engineering, 2011; 122 (43-52): 894-906

Conference publications

- Author, Alan, **Mark MacEnery**, Tom Article. Title. Conference title, Conference City, State, 2011.
- Author, Alan, **Mark MacEnery**, Tom Article. Title. Conference title, Conference City, State, 2010.

Presentations

- Presented "Numerical Study of Natural Convection in Solar Thermal Storage Vessels" at the Alabama Society of Professional Engineers Conference 2011, Huntsville, AL, September 19-22, 2013
- Presented "Numerical Study of Natural Convection in Solar Thermal Storage Vessels" at the American Society of Mechanical Engineers Conference 2011, St. Louis, MO, June 4-7, 2013
- Presented "Real-Time Automotive Slip Angle Estimation with Nonlinear Observer" at American Control Conference 2011, Atlanta, GA, January 12-15, 2011
- Presented "Low Pressure Plasma Synthesis of Crystalline Silicon Nanoparticles" at Auburn University Master Thesis Event 2009, Auburn, AL, May 2, 2009
- Presented robot at Auburn University Robot Show Fall 2005, Auburn, AL, December 8, 2005

Posters

- "Low Pressure Plasma Synthesis of Crystalline Silicon Nanoparticles," Alabama Society of Professional Engineers Conference 2010, Huntsville, AL, September 20-24, 2010

SERVICE

Professional

Reviewer for the University Executive Council of Graduate and Professional Student Professional Advancement Grants	Fall 2012
--	-----------

Community

Volunteer, Annual Blood Drive-American Red Cross, Auburn, AL	May 2011-Present
AmeriCorps Volunteer, MN Math Corps, Montgomery, AL	June 2009-July 2010

PROFESSIONAL MEMBERSHIPS

International Association of Mechanical Engineers	August 2013-Present
American Society of Mechanical Engineers	August 2009-Present