

HOWARD J. CONYERS

Ph.D Candidate
Department of Mechanical Engineering and Materials Science
Duke University

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CAREER OBJECTIVE

Dedicated to learning and applying new principles to solve new and existing engineering problems in industry in the field of aeroelasticity, structural dynamics, and aerodynamics while gaining the expertise to become a Professional Engineer (P.E.). Further grow myself professionally in terms of leadership while continuously giving back to the community. Eventually return back to academia after learning these skills and practical applications of engineering to be able to share and stimulate the next generation of engineering in a desire to increase diversity.

EDUCATION

- Ph.D. 2009 *Mechanical Engineering and Materials Science*
Duke University, Durham, NC
Concentration: Aeroelasticity
Proposed Dissertation: Effect of Wing Damage on Aeroelastic Behavior
- M.S. 2006 *Mechanical Engineering and Materials Science*
Duke University, Durham, NC
Thesis: Experimental Study of Flutter of Flutter of Cropped Delta Wing
- B.S. 2004 *Bioenvironmental Engineering*
North Carolina A&T State University, Greensboro, NC

RESEARCH & TEACHING EXPERIENCE

- Fall 2007 *Teaching Assistant*, Engineering 10 - Introduction to Engineering
Spring 2006 *Teaching Assistant*, Engineering 123 - Dynamics
Fall 2006 *Teaching Assistant*, Engineering 123 - Dynamics
2005-Present *Research Assistant*
Conducted experiments on the Delta Wing to learn how to set up and operate the wind tunnel for experiments. Integrated the use of B&K PULSE in vibration experiments for data collection and spectral analysis. Performed Structural Analysis tests on plates with holes using finite elements and validated experimentally. Currently, writing a Doublet Lattice Aerodynamic Code to couple with a finite element model to complete aeroelastic studies on a Cropped Delta Wing.

PROFESSIONAL EXPERIENCE

- 2003 *Production Assistant Intern*
Archer Daniels Midlands, Valdosta, GA
Designed the Dust Aspiration System for a grain elevator; participated in the bringing of a plant back on-line from shutdown; completed process flow diagrams of the facility; conducted the sampling of run off water following a rain event; analyzed and tracked pH probes for their reliability and cost effectiveness in fermentors; finalized drawings for training tools; studied the effects of ending fermentation early to reduced energy costs; moderated fermentation daily staff meetings; conducted safety interviews and follow-up investigations after an accident.

UNIVERSITY ACTIVITIES

Duke University

- 2006-Present American Institute Aeronautics and Astronautics (AIAA)
2006-Present Duke University Graduate School Recruiter
2004-Present Duke University Bouchet Society
2006-2007 Community Service Chair
2007-2008 Mentoring Program Chair
2000-Present National Society of Black Engineers (NSBE)

North Carolina A&T State University

- 2003-2004 Aggie Engineers Toastmaster - Vice President of Public Relations
2003-2004 College of Engineering Grades Appeal Student Representative
2004 Lockheed Martin Stars Institute
2002-2004 Boys Scouts of America Troop 29
2003-2004 Scout Master
2002-2003 American Society of Agricultural Engineers – President

HONORS & AWARDS

Duke University

- 2006 North Carolina Space Grant Graduate Research Fellowship
2006 National Science Foundation Graduate Research Fellowship Honorable Mention

North Carolina A&T State University

- 2004 Top 1% of the graduating class of 2004
2004 College of Engineering NAMASKAR Award
2004 Top College of Engineering graduate class of 2004
2004 Gamma Sigma Delta Senior of the Year
2004 Pan Hellenic Council Fraternity Greek of the Year
2004 Southern Region of Alpha Phi Alpha College Brother Scholastic Award 2004
2003 Association of North Carolina Alphas College Brother of the Year
2003 North Carolina American Council of Engineering Companies Scholar
2003 Accenture Foundation Scholar
2000-2002 United States Department of Agriculture 1890 Scholar

PROFESSIONAL & HONORARY AFFILIATIONS

2004 Phi Kappa Phi Honor Society Chapter 291 - Charter Member
2003-Present Alpha Phi Alpha Fraternity, Inc
2002 Tau Beta Pi Engineering Honor Society
2002 Alpha Kappa Mu Honor Society

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