Sarah Lewers

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**Objective:** To learn research methods as a Doctoral Graduate Research and Teaching Assistant in the Department of Industrial and Systems Engineering. In addition to this, obtaining internship and scholarship funding to support completion of the Ph.D. program.

**Education: North Carolina Agricultural & Technical (A&T) State University, Greensboro, NC**

* **Ph.D., Industrial & Systems Engineering beginning term in Spring 2018**
* **M.S., Technology Management with a concentration in Environmental Health and Safety, May 2017**
* **B.S., Chemical Engineering, December 2011**

**Relevant Courses:** Numerical Methods, Chemical Process Principles, Material Science,

Organic Chemistry I, and Organic Chemistry I Lab, Fluid Mechanics, Thermodynamics I,

Statics and Mechanics of Materials and Circuits, Industrial Hygiene, OSHA Management

* **Certificate in Waste Management, December 2011**

**PUBLICATIONS:**

**Technical Engineering Memorandum**

* Written document communicating results of research completed during summer internship with the Air Force Research Laboratory Scholars Program.
* The Technical Engineering Memorandum can be used to continue the research, in the same way document remarkable scientific results.

**Master’s Thesis – “An Investigative Study of Safety Management Practices in Chemical - Related Industries”**

* The thesis will be published to ProQuest on the Electronic Theses and Dissertations database.
* NC A&T State University’s F.D. Bluford Library Online System provides access to the database.

**Experience:** **Doctoral Graduate Research and Teaching Assistantship (Fall 2018 to Spring 2019)**

* Doctoral Graduate Research Assistantship for dissertation research currently on the topic “A Study of Location Logistics for Autonomous Vehicles in Humanitarian Relief Systems.”
* Graduate Teaching Assistant for an undergraduate Industrial and Systems Engineering course. The Production control course includes concepts of demand forecasting, aggregate production planning, inventory control, project planning, line balancing and job scheduling.

**Summer NSF EMCoR and DHS REU Mentor (Summer 2018)**

* North Carolina Agricultural and Technical State University Engineering Modeling and Computation Research and DHS-REU program for the College of Engineering.
* EMCoR Graduate Student Research Mentor and DHS Graduate Assistant for the Department of Industrial and Systems Engineering.

**Doctoral Graduate Research Assistantship (Beginning Spring Semester 2018)**

* Graduate College and Departmental scholarship funded by ERC Project Grant at North Carolina Agricultural and Technical State University to complete current research in Industrial & Systems Engineering for the Spring Semester of 2018.
* The Graduate Assistantship involves activities that are relevant to Industrial & Systems Engineering, provides training in current research methods, and contributes to the university’s research mission.

**Sylvan Learning, INC. of Charlotte, NC (Fall 2017)**

* Sylvan Teacher supervising, interacting with students todevelop rapport and establish a fun learning environment, motivating students during instruction time, and monitoring student progress. (Innovative Learning Concepts of NC, Inc. - Sylvan Learning Centers, LLC)
* Sylvan Edge Coding Teacher encouraging and helping students through complex modules in STEM coding classes provided by the Tynker coding computing platform that assist in engaging programming curriculum for schools.

**Air Force Research Laboratory Scholars Program (Summer 2016)**

* Completed a summer internship with the Air Force Research Laboratory at Eglin Air Force Base
* Investigated hybrid and multi-functional materials that provide structural and enhanced blast properties in weapons systems being developed by AFRL - Munitions Directorate.
* Participated in a presentation training workshop and toured the McKinley Climatic Lab on the Eglin Air Force Base to better understand material characterization techniques.
* Toured the Fuze Experimentation Facility and the Academic Training Center on the Eglin Air Force Base for an overview of the F-35 mission and Joint Strike Fighter training techniques.
* Briefed at poster session to provide the opportunity for AFRL leadership and mentors to gain awareness of the research efforts.

**Research Compliance Graduate Assistant NCAT: Division of Research &**

**Economic Development (Fall 2015 to Spring 2016)**

* Graduate Assistant for the director and the compliance officer in the Office of Research

Compliance and Ethics.

* Responsible for monitoring the office email account and responding appropriately; verifying on-line training records; creating approval packages for researchers; developing web page materials; monitoring conflict of interest disclosures and training; and identifying export control projects.

**Quality Assurance, Proctor and Gamble, INC. (January 2014 to October 2014)**

* Six Month Temporary Position: Investigating Consumer Complaints in the Quality Assurance

Department at the Proctor and Gamble Plant in Brown Summit, NC (XLC Services)

* Facilitated consumer complaints service in the Quality Assurance Department for P&G, data mined products for defects, analyzed samples of the product in the retain room using SAP database software, and closed consumer complaints.
* Products included: Crest toothpaste, Secret/ Old Spice deodorant and Fixodent
* Coordinated with business leaders to complete packing and supplier investigations if further investigation is needed

**Wireless Care Representative, KGB USA Company (Verizon Wireless)**

**(September 2012 to October 2013)**

* Implemented troubleshooting for customer issues, processed payments, programmed cellular devices and products that required data plans for prepaid Verizon accounts.

**Research Assistant at** **North Carolina A&T State University** **(August 2009 to August 2010)**

* Implemented lab research methodology and processes for Graduate Research Students in the Mechanical Engineering Department of North Carolina A&T State University

**PROJECTS: Engineering Research Center for Revolutionizing Metallic Biomaterials**

**Research Experiences for Undergraduates (ERC-RMB REU) Internship Program,**

**North Carolina A&T State University (May to August 2009)**

* Active lab team member in summer program to prepare a highly diverse and globally experienced and innovative engineering workforce for enhancing prosthetics in the U.S. Biomedical Research Industry and university faculty in engineering and medicine.
* Facilitated a presentation, entitled “Optimization of Magnesium and Titanium Coatings Developed by DC Magnetron Sputtering” to university faculty involved in the summer research program.

**HONORS AND AWARDS:**

* **Dance Productions of Charlotte, NC -** dancer for 7 years participating in tap, jazz, ballet and gymnastics courses at a studio for presentation in annual dance recitals. (1995 to 2001)
* **As a student representing Mrs.** **Clara Jones Piano Studio of Charlotte, NC –** performed in Junior Division of Omega Talent Hunt and received honorable mention on February 16, 2003.
* **Grier Heights Presbyterian Church Pastor Nominating Committee –** Christian Leadership Excellence Award (2001-2004)
* **Presbyterian Youth Council of Charlotte, NC –** visited Purdue University for Presbyterian Youth Triennium. (2004)
* **GAPP –** German American Partnership program at Harding University High school (June 12th, 2005)
* **Harding University High school student accomplishments –** International Baccalaureate Program, German Honor Society, National Technical Honor Society, Order of the Ram, National Health Occupation Students of America
* **Delta Sigma Theta Sorority, Inc. (A Public Service Sorority) –** Special Recognition as a “Delta Legacy” in the Debutante Cotillion Ball. (April 15, 2006)
* **EXPERT Program-** Experimental Program for Education through Research and Training. An undergraduate scholarship research and development program offered through the Chemical Engineering Program NC A&T State University (2007-09)
* **Doctoral Graduate Research Assistantship** – Graduate College and Departmental scholarship funded by ERC Project Grant at North Carolina Agricultural and Technical State University to complete current research in Industrial & Systems Engineering. (Spring semester 2018)

**COMMUNITY SERVICE:**

* **Striving for Perfection Ministries – FFL Lego League Jr. Challenge –** Volunteered to prepare elementary students for final group presentations involving the use of programming techniques such as coding and robotics.Volunteered on March 11th, 2017 at Striving for Perfection Ministries: 24 Bass Avenue SW Fort Walton Beach, FL.

**Computer Skills:**  **Matlab, Microsoft Word, PowerPoint, Excel, Internet Applications,**

**Modeling and Simulation** (with Aspen Plus)

**Activities:**

**Harding University High School Lady Rams Varsity Tennis Team** - (2004 - 06)

**Harding University High School Honors Orchestra** – (2003 - 05)

**American Institute of Chemical Engineers-** Community Service Chair (2008-09)

**EXPERT Program-** (2007-09)

**Society of Women Engineers**-(2009-10)

**International Society for Pharmaceutical Engineering-**Historian (2008-09)

**Grier Heights Presbyterian Church Presbyterian Women Organization**(2012-2017)

**Human Factors and Ergonomics Society** – Secretary (2018)

**Saint James Presbyterian Church Women Liturgical Dance Ministry** – (2018)

**References Available Upon Request**