

SINAN SU

College of Industrial and Systems Engineering, Auburn University,

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APPLICATION INTEREST

A devoted and sincere Master student with superior teamwork abilities and sense of responsibility desires to obtain an *internship* or *Full-time* job in the *Ergonomics* or *Safety* fields.

TECHNICAL SKILLS

- Proficient in using Xsens 3D motion capture system and Vicon optical system on 3D human body motion tracking.
- Skilled in using EMG, Strain Index, RULA, ACGIH, OWAS, Borg Scale and other tools to analyze risk factors.
- Programming Skills: Python, SAS.
- Mathematical and Statistical Analysis Software: SAS, Minitab.
- Engineering and Simulation Software: Tableau, Auto CAD, Tecnomatix Plant Simulation.

EDUCATION

- **M.S. in Industrial & Systems Engineering** (Occupational Safety & Ergonomics) Aug 2013 – May 2015
Auburn University, Auburn, AL
- **B.S. in Industrial Engineering** Sep 2009 – Jul 2013
Hunan University, Changsha, China

WORKING EXPERIENCE

Research Assistant

Auburn University, Auburn, AL

June 2016 – Sep 2016

Project: An Evaluation of Exposure to Physical Risk Factors for Musculoskeletal Health Outcomes at Pilgrim's

- Assessed 32 unique work tasks on Strain Index, ACGIH and OWAS to estimate risk for adverse musculoskeletal health outcomes.
- Developed a ranking of 32 tasks from the "riskiest" to "least risky" with recommendations for potential improvements.

Research Assistant

Auburn University, Auburn, AL

Jan 2016 – May 2016

Project: Full Shift Physical Activity among Reforestation Hand Planters. A Feasibility Study

- Characterized the intensity of physical activity using inertial measurement units (IMUs) placed on the upper arms, trunk, and waist of ten reforestation hand planters during full shift work.

Research Assistant

Auburn University, Auburn, AL

Aug 2015 – Dec 2015

Project: Motion Capture of Critical Populations for Ingress and Egress.

- Operated Vicon and Xsens software to capture human motions of different populations.
- Developed the experiment procedures for the data capture systems and subject interaction.

Safety and Ergonomics Workshop (Honda, JC Control etc.)

Lincoln & Clanton, AL

Sep 2014 – Nov 2014

- Used strain index and RULA safety assessment form to analyze risk factors of manual material handling tasks.
- Presented results to safety managers, offered recommendations and potential improvements.

Intern, Dongfeng Nissan Passenger Vehicle Co. Ltd.

Huadu, Guangzhou, China

Jun 2012 – Aug 2012

Project: Improving logistics of machining and assembly process of and system simulation of engine cylinder and cam shaft

- Systematically studied logistics; learned the Nissan Production Way (NPW)
- Obtained knowledge on operation and logistics improvement and gained familiarity on engine company's production

process

Vice President, Student Union of College of Mechanical Engineering

Changsha, Hunan, China

May 2010 – Mar 2011

RESEARCH

Effects of age, obesity and its interaction with task parameters on one handed lifting biomechanics

Auburn University, Auburn, AL

June 2016 – present

- 3D Xsens Motion Capture System and Force Plate was utilized to collect L5/S1 low back motion data and built biomechanical low back model.

The Effect of Varying Force and Repetition on Skeletal Muscle Fatigue

Auburn University, Auburn, AL

Jan 2015 – Dec 2015

- This study measured creatine phosphokinase (CPK) to quantify the tissue damage.
- Tissue inflammation was assessed by the change of quantification of CPK levels pre- and post- eccentric exercise of each set after each exercise in human subjects.

The Fatigue Failure Hand and Wrist Risk Assessment Tool

Auburn University, Auburn, AL

Aug 2014 – Dec 2014

- Punished the high force tasks based on the fatigue failure theory.

ACTIVITIES / HONORS

- The Graduate Certificate of Occupational Safety and Ergonomics, Auburn University.
- Secretary of Human Factor and Ergonomics Society (HFES) Auburn Chapter.
- Member ASSE, HFES, IIE.