

LANJUN YIN

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Education

Ph.D., Fiber & Polymer Science, North Carolina State University, GPA: 4.0/4.0 Expected December 2020
M.S., Textile Engineering, North Carolina State University, GPA: 4.0/4.0 August 2017
B.E., Textile Engineering, Jiangnan University (China), GPA:3.66/4.0 July 2016

Research Experience

The Nonwovens Institute, North Carolina State University

Research Assistant August 2017 - Present

- Developed protocol approved by IRB for human subject experiments and defined methodology for skin physiology measurement (TEWL, skin redness) and skin sensation evaluation
- Collected nonwoven fabric samples from different suppliers and conducted benchmark tests. Characterized fabric material and structure properties by SEM, Kawabata Evaluation System, Instron, etc.
- Created a system for friction measurement on human skin and saved 80% cost
- Statistical data analysis by SPSS, image processing by Matlab and ImageJ

Wilson College of Textiles, North Carolina State University

Research Assistant 2016 - 2017

- Designed a wearable sensor for infant ECG monitoring. Conducted structure design of sensors by AutoCAD graphic design, thin-film casting, laser cutting, thermal lamination, and screen printing
- Modified screen-printing process and improved the wash fastness of the wearable electrodes from 5 cycles to 25 cycles
- Fabricated the infant onesie by whole-garment knitting technology and tested on infants by working with pediatricians

College of Textiles and Clothing, Jiangnan University

Research Associate 2014 - 2015

- Collaborated with graduate students working on short fibers from cotton stalk bark
- Led a group of 5 to design and produce combed cotton yarns for denim fabric
- Selected as the only undergraduate student of the year to obtain the scholarship sponsored by Uster Technologies

Project Experiences & Outreach

Teaching volunteer, Stough Elementary School

March 2018

- Communicated with students and teachers both in English and Mandarin
- Recorded videos to introduce Chinese culture and engineering science

Six Sigma Project, NC State University & Rollease Acmeda

January - May 2017

- Led a team of 6 working on the improvement of the efficiency of picker operation and shipping in the warehouse
- Visited the factory, interviewed the manager and workers. Collected data and analyzed in JMP
- Generated a report and presented the solution using the six sigma DMAIC methodology

2017 Make-A-Thon, NC State University

February 2017

- Initiated a project for the development of transportation app and formed a 4 person cross-function team
- Made hardware design with Arduino, app backend support by IBM BlueMix, and prepared prototype in about 15 hours
- Invited by TransLoc Inc. and presented the idea about how to improve Rider app

E-Textiles Independent Study, NC State University

January - May 2016

- Designed and made a smart cup coaster to automatically indicate the temperature of drinks by SolidWorks model design, 3D printing, and Arduino programming

President of News Department, student union, Jiangnan University

2013 - 2014

- Took charge of department recruitment and managed weekly meetings
- Worked with fellow students to plan, organize, and advertise events using various platforms

Midea and Samsung part-time job, Wuxi, China

August, December 2013

- Communicated with costumers to determine their needs.
- Promoted products by introducing features of new products.

Skills and Interests

Software: Origin, JMP, SPSS, SolidWorks, AutoCAD, Matlab, ANSYS, Microsoft office suite.

Technical: Fiber and fabric characterization, Skin physiology testing, Yarn spinning and testing, Screen printing, 3D printing, Arduino

Languages: English, Chinese

Interests: hiking, climbing, table tennis, basketball

Invention Disclosure & Certificate

- Invention disclosure: "Infant Onesie for Electrocardiogram Measurement", November 21, 2017.
- Certificate: Nonwoven Science and Tech, The Nonwoven Institute, NC State University, Spring 2019.