

AVONI GHARDE

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HIGHLIGHTS

- ✓ Expertise in Characterization, Development, Extrusion, Optimization, Testing, and Analysis of Fibers, Polymers and Nonwoven Materials
- ✓ Experience in Investigation using Analytical Techniques such as SEM, FTIR, DSC, TGA, MVR, etc.
- ✓ Hands-on experience with Equipments such as Solution Viscometry, Rheology Testing, Tensile Tester, Optical Analysis

EXPERIENCE

Applications Testing Engineer

November 2020 - Present

Natural Fiber Welding, Inc., Peoria, IL

- Working closely with R&D, business teams and Natural Fiber Welding (NFW) customers.
- Bringing new products to the market across a wide set of applications.
- Developing test methods & supporting the fast growth of NFW's Mirum product line.

Laboratory Technician

October 2020– November 2020

The Nonwovens Institute, North Carolina State University, Raleigh, NC

- Managed client trials for production of N95 Mask Filter Media on the Reicofil Melt-Blowing Equipment.
- Evaluated and conducted tests for QA and ensure ISO9001 compliance with GMP.

Textile Auxiliaries R&D Intern – DyStar, LP

May 2019 – August 2019

Charlotte, NC

- Identified key opportunities for performance chemicals' customers.
- Evaluated and tested water repellent and resin products on multiple fabric substrates.

Graduate Research Assistant

July 2017 – June 2020

Wilson College of Textiles & The Nonwovens Institute, North Carolina State University, Raleigh, NC

- Effectively utilized analytical techniques to characterize carpet recycled Polyester and Nylon 6 pellets such as TGA, DSC, Melt Flow Index, SEM, Solution Viscometry, and FTIR.
- Successfully manufactured filaments on melt-spinning and melt-blowing production lines.

Research Intern - BASF

May 2014 – July 2014

Navi Mumbai (India)

- Analyzed enzyme application to reduce pilling effect on cotton substrates.
- Completed comparative studies of softener classes and performance studies of resin finishes on various fabric substrates.

EDUCATION

Ph.D. Textile Technology Management co-major Fiber Polymer Science

August 2015 – July 2020

Wilson College of Textiles, North Carolina State University, Raleigh, NC

GPA 3.87/4.00

- Dissertation: Carpet Recycled Polymers - Characterization, Fiber Formation and Applications
- Graduate Certificate: Nonwoven Science and Technology
- NC State LEAD Awards: Outstanding Student Organization Officer
- Osborne Graduate Fellowship: Winner amongst 3 honourable nominees

B. Tech Fibres and Textiles Processing Technology

August 2011 – June 2015

Institute of Chemical Technology, Mumbai (India)

CGPA 8.23/10.00

- Senior Project: Optimization and Production of Electro-Spun Silk Fibroin Nanofibres

PUBLICATIONS

- **Journal of Textile and Apparel, Technology and Management:** November 2016
Influence of Factors on Clothing Sales and its Future Trends - Regression Analysis and Time Series Forecast of Clothing Sales

RELATED COURSEWORK

Physical Properties of Fibers and Polymers | Rheology | Fiber Formation | Characterization of Structure of Fiber Forming Polymers | Nonwovens Processing | Nonwovens Characterization Methods | Product Development | Apparel Technology Management | Textile Dyeing and Printing | Evaluation of Dyes and Specialty Chemicals | Global Textile and Apparel Business Dynamics | Environmental Aspects of Textiles Processes | Lean Six Sigma

LEADERSHIP & ACTIVITIES

- **Vice President:** Materials Research Society, NC State University Chapter September 2018 – October 2019
- **President:** Textile Association of Graduate Students (TAGS at NC State University) April 2016 – July 2017
- **Chair:** Teaching Effectiveness Committee (GSA at NC State University) September 2016 – July 2017
- **Student Member:** Graduate Women in Science (GWIS), American Association of Textile Chemists and Colorists (AATCC), American Society for Testing and Materials (ASTM), Materials Research Society (MRS), Society of Plastics Engineers (SPE)