

Simge Uzun

4247 Locust St., Apt. 725, Philadelphia, PA, 19104
simgeuzun@gmail.com

EDUCATION

Drexel University, College of Engineering, Philadelphia, PA

Ph.D. in Materials Science and Engineering September 2017 – Present

Cornell University, College of Human Ecology, Ithaca, NY

M.S. in Fiber Science, minor in Materials Science and Engineering (3.75 GPA) 2014 – 2016

Istanbul Technical University, Faculty of Textile Technologies and Design, Istanbul, Turkey

B.S. in Textile Engineering (3.36 GPA) 2009 – 2014

Technische Universitaet Dresden, Dresden, Germany

Exchange Graduate Student in Mechanical Engineering February – July 2012

Greenwich High School, Greenwich, CT

Exchange Student 2008 – 2009

ACADEMIC EXPERIENCE

Alvarez Research Group, Rheology, Complex Fluids and Surface Lab., Drexel University November 2016 – May 2017

Research Assistant

- Co-developed a novel conveying apparatus to disperse carbon fibers in air to be individually coated
- Collaborating in a 5-member team to thermoplastic coat staple carbon fibers prior to their use in composite applications
- Investigated rheological properties of booger fluids; an elastic fluid with constant viscosity

Hinestroza Research Group, Textiles Nanotechnology Laboratory, Cornell University

August 2014 – August 2016

Silberstein Research Group, Mechanics for Material Design, Cornell University

September 2014 – August 2016

Graduate Researcher

- Investigated the fiber orientation evolution in nonwoven materials during monotonic tensile and stress relaxation tests at Cornell High Energy Synchrotron Source (CHESS)
- Monitored changes in 3D microstructure of nonwoven specimens, induced by deformation, using in-situ Micro Computed Tomography (μ CT) imaging at CHESS
- Developed code by using MATLAB to analyze and characterize collected μ CT and X-ray Diffraction (XRD) data
- Produced by electrospinning nanofibers to generate tubular and self-sustained porous structures with collaboration with Fresenius Medical Care
- Mentored undergraduate in using bicomponent extrusion system to create fibers with unique cross sections
- Operated an industrial-sized extruder machine to produce polymer-based nonwoven materials
- Planned and implemented laboratory operations to produce and develop material and fabrication procedures that meet cost and product specifications and performance standards
- Delivered weekly research-related presentations to supervisor and other members of the research group, resulting in improved quality of presentations

Istanbul Technical University, Istanbul, Turkey

Undergraduate Research Assistant

January 2013 – January 2014

- Manufactured, using electrospinning techniques, nanoparticle-reinforced porous medical materials containing porous fibers
- Conducted background research for scientific articles and improved future experiments based on results of previous experiments

RWTH Aachen Technical University, Aachen, Germany

Research & Development Intern, "Medical Textiles" Research Group

July – September 2011

- Collaborated in a 2-member team to develop a neutral degrading biocompatible fiber by optimizing production parameters for melt spinning

PUBLICATIONS

- Chen, Naigeng, Margaret KA Koker, Simge Uzun, and Meredith N. Silberstein. "In-situ X-ray study of the deformation mechanisms of non-woven polypropylene." *International Journal of Solids and Structures* (2016)

PROFESSIONAL EXPERIENCE

Ipekyol, Istanbul, Turkey

Assistant Fabric Purchase Specialist

February – June 2014

- Managed company's external suppliers with emphasis on the purchase of fabrics for production
- Negotiated prices, discount terms, and transportation arrangements for merchandise
- Ensured fabrics and materials are purchased at the most favorable price while meeting quality, quantity, and specification and delivery requirements
- Collaborated with designers during the collection preparation by suggesting fabrics based on designer's needs

Global Relations Forum, Istanbul, Turkey

Intern

July – November 2013

- Served on a 5-member team that created exclusive professional networking database; conducted bilingual translation between Turkish and English
- Participated in meetings with distinguished speakers, such as state dignitaries, CEOs of multinational corporations, and industry specialists; wrote summaries of meetings for post-meeting distribution

Globalturk Capital, Istanbul, Turkey

Marketing Intern

October 2011 – February 2012

- Conducted online and telephone research to identify new international business prospects
- Created prospective client database for company
- Assisted in marketing and communication related matters

LEADERSHIP EXPERIENCE

American Field Service (AFS), Istanbul, Turkey

Member

2009 – Present

- Deliver seminars to outgoing exchange students on cultural adjustments

International Association of Students in Economic and Commercial Sciences (AIESEC), Istanbul, Turkey

External Relations Coordinator - Leadership and Development Summit

October 2010

- Organized external speakers and agenda by contacting speakers and convincing them to give a presentation
- Increased number of speakers by 20 percent and student attendance by 50 percent

Special Events Coordinator - International Anatolia Congress

July 2010

- Organized opening and closing ceremonies for 300 international delegates held in Ortakoy, a famous tourist spot in Istanbul

ADDITIONAL SKILLS

- Fluent in Turkish and English • Proficient in German
- Characterization: Micro Computed Tomography (μ CT), Electrospinning, Extruder, X-Ray Diffraction (XRD), Field Emission Scanning Electron Microscope (FESEM), Atomic Force Microscopy (AFM), Focused-Ion Beam (FIB).
- Programming: MATLAB, R Studio, AVIZO