

# Mohammad Shamsi

Mshamsi@ncsu.edu | +1 919-649-0327

Raleigh, NC 27606 | [linkedin.com/in/mohammad-shamsi-6789bbbb](https://www.linkedin.com/in/mohammad-shamsi-6789bbbb)

---

## Professional Experience

### TOTAL

Tehran, Iran

*Process Engineer-oil refinery process*

Feb. 2010 – Jul. 2013

- Research, designing and development of new equipment for used oil refining process.
- Responsible for monitoring of equipment including regular testing and ensuring maintenance tasks are carried out.
- Oversight of processes and working to maintain optimization of both bleaching and filtering of oil.
- Assisting process technicians in troubleshooting in the event of a problem.
- Data collection, interpretation, report writing and presenting them to senior colleagues and management.
- Use of simulation software in the development of new processes.

### Tehran University

Tehran, Iran

*Research Assistant-Polymer processing*

Aug. 2013 – June 2018

- Conducting literature reviews, collecting and analyzing data on microfluidics and polymer nanoparticles
- Review and edit data to ensure completeness and accuracy of information
- Preparing findings for publication and assist in laboratory analysis, quality control, or data management.
- Assisting with preparation of all educational and training workshops and evaluation strategies.
- Set up, calibrate and maintain laboratory and/or field research equipment, as specified by the requirements.
- Providing training and technical assistance resources to students and academic investigators.
- Supervising undergraduate students working on the research project.
- Maintaining records on assignment completion, acting as liaison/mediator between students and the faculty.

## Research Experience

### The Nonwovens Institute(NWI) (NC State University)

Raleigh, NC, USA

*Research Assistant*

Dec. 2018 – present

- Fundamental study of thermoplastic elastomers in fiber extrusion (melt spinning) process.
- Characterize polymers morphology and correlate with monofilament process-property relationship.

### Polymer Morphology/Dickey's groups (NC State University)

Raleigh, NC, USA

*Research Assistant*

Dec. 2018 – present

- Investigating thermoplastic elastomers to develop ultrahigh stretchable fibers and fabrics.
- Evaluating liquid metal/polymer composites for developing new semi-conductive products.

## Education

Ph.D., Chemical and Biomolecular Engineering | North Carolina State University, USA

expected May 2023

M.S., Polymer Engineering | Tehran University, Iran

Sep. 2016

B.S., Chemical Engineering | Amirkabir University, Iran

Apr. 2010

## Skills and Interests

*Computer:* HYSIS, Aspen, Moldflow, Comsol Multiphysics, Microsoft Office.

*Technical:* AFM, DSC, SEM, TEM, Rheology, Instron Instruments, Polymer extrusion.

*Languages:* English (proficient), Persian (native), Arabic (beginner), Turkish (beginner).

*Interests and Affiliations:* biking, reading, board games, cooking.

## Publications, Awards and Honors

- 5 published refereed journal papers.
- 3 peer reviewed conference papers.
- Winner of highly competitive Dr. Hashemi's prize for outstanding research at Tehran University in 2017.
- The Innovative Research Award from The Iran Nanotechnology Initiative Council in 2016.
- Distinguished Research Award from The Science and Technology Park, Tehran University in 2016.