

# Dominic Luz Garcia

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## Objectives

After completing my Ph.D, I intend to enter research and product development in the field of nonwoven textiles and polymer science to advance manufacturing processes.

## Education

### HONORS BACHELOR OF SCIENCE | MAY 2020 | UNIVERSITY OF THE SCIENCES IN PHILADELPHIA

- Major: Chemistry, Minor: Mathematics
- ACS Certified, Awarded for Excellence in Analytical Chemistry
- GPA: 3.87/4.00

### PH.D. CANDIDATE | AUGUST 2021 - PRESENT | NORTH CAROLINA STATE UNIVERSITY

- Specializing in Fiber and Polymer Science, obtained Nonwovens Certificate
- Student Researcher of The Nonwovens Institute
- Awarded Best Oral Presentation Fall 2023 and Spring 2024
- Research Advisor: Dr. Eunkyong Shim
- Project Title: *Thermal Bonding in Polyester Nonwovens and Effect of Additives*

## Relevant Experience

### ASSOCIATE CHEMIST II | WUXI APPTec | MARCH 2021-AUGUST 2021

- Performed sample analysis of clinical samples utilizing precipitation and solid phase extraction
- Operated LCMS instruments utilizing programs including Analyst and Watson
- Practiced GLP and GCP as well as following in-house documentation on an individual basis

### QC ANALYTICAL CHEMIST | ACCUPAC INC. | SEPTEMBER 2020-JANUARY 2021

- Performed physical testing on batch production samples such as viscometry, density, pH, and peroxide assays
- Received and processed raw material samples, organized CoAs, and performed wet chemistry analysis
- Performed daily calibration checks of lab instruments such as the pH meter and Analytical Balances
- Practiced cGMP and GDP as well as following in-house procedures on an individual basis

### UNDERGRADUATE RESEARCH - DR. ALEXANDER SIDORENKO | MAY 2017-MAY 2020

- Collaborated with mentor to pioneer synthesis pathway of novel antimicrobial polymer substances
- Independently utilized organic synthesis and spectroscopic techniques such as NMR, MS, and GPC
- Worked extensively on data visualization and graphic design

## Skills

### INSTRUMENTATION EXPERIENCE

- Material Science: INSTRON Extensometer, FAVIMAT Single-Fiber Tester, Filter Efficiency Testing, Differential Scanning Calorimeter, Experience with REICOFIL Spunbond Line and Hills Lab Scale Line
- Physical Testing: Viscometer, pH meter, Densitometer, Consistency Meter, Analytical Balance, Burettes and Titration, Wet Lab Techniques, Digital Microscope
- Spectroscopy: LC/MS, Infrared Spectroscopy, Nuclear Magnetic Resonance, UV/Vis

### OTHER EXPERIENCE

- Program Proficiency: Microsoft Office Suite, ORIGIN Pro, SOLIDWORKS, Inkscape, JMP, RStudio, Patent Searches
- Knowledgeable in LIMS data entry software