

# GENERAL OZOCHIAWAEZE

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## EDUCATION

- PhD, Mathematics, Purdue University, Expected: 2026
- MS, Applied Mathematics, New Jersey Institute of Technology, 2021
- BA, Mathematics, Rutgers University, 2018

## RESEARCH EXPERIENCE

### MIT Lincoln Laboratory

Lexington, MA

Summer Research Intern

May 2022-Aug 2022

- Collaborated with the Advanced Undersea Systems and Technology group to quantify real operational performances of sonar arrays deployed in random ocean environments.
- Designed and implemented signal processing algorithms in MATLAB for active and passive sonar applications.
- Delivered presentations to sponsors and working groups to effectively communicate proposed solutions and completed analysis.

### New Jersey Institute of Technology

Newark, NJ

Graduate Researcher

Jul 2020-May 2021

- Implemented computational simulation of acoustic wave scattering in underwater environments in Python, MATLAB, and COMSOL.
- Critically analyzed properties, trends, and features in ocean beds by solving problems in high frequency seafloor acoustics.
- Communicated professionally with faculty to meet deadlines and complete research.

### New Jersey Institute of Technology

Newark, NJ

Research Assistant

Oct 2020-May 2021

- Contributed to multi-disciplinary project aimed at improving motion planning for multi-robot systems.
- Analyzed data on the shape formation and assembly of a group of robots via intermittent diffusion and the conjugate gradient method.
- Collaborated and coordinated with faculty and fellow graduate students across departments.

## TEACHING AND MENTORING EXPERIENCE

### Purdue University

West Lafayette, IN

Graduate Teaching Assistant

Aug 2021-Present

- Lead recitations for undergraduate mathematics courses.
- Graded problem sets, quizzes, examinations, and projects.
- Conducted office hours and tutoring for students.

### Little Ivy Academy

Ridgewood, NJ

STEAM Summer Camp Counselor

Jun 2021-Aug 2021

- Passionately taught hands-on classes in robotics, programming smartphone apps in C#, stop animation movies, and website design.
- Successfully managed campers and junior staff with patience and good humor.
- Prepared and maintained lab spaces throughout the day.

### New Jersey Institute of Technology

Newark, NJ

Grader

Sep 2020-May 2021

- Assisted course instructors with the grading of exams, assignments, quizzes, and projects.
- Supervised and administered examinations of university students.
- Monitored students during exams to ensure that testing guidelines are followed.

**Accel Learning***Math Instructor***Secaucus, NJ***Aug 2020-Dec 2020*

- Taught mini online courses in test preparation for AMC, AIME, Math Kangaroo, and other math competitions.
- Additionally provided 1-on-1 tutoring services for SAT, ACT, and SCAT Test Prep.

**New Jersey Institute of Technology***Recitation Instructor***Newark, NJ***Sep 2019-May 2020*

- Created supporting lectures for undergraduate math courses and instructed weekly recitation classes.
- Devoted special emphasis to punctuality and worked to maintain outstanding attendance record, consistently arriving to work ready to start immediately.
- Provided on-campus support to students in a receptive, positive, learning-oriented environment.

**Mathnasium***Math Instructor***Glen Rock, NJ***Sep 2018-Jan 2019*

- Employed teaching and learning strategies that cultivated the abilities and intellectual curiosity of students in grades K-12.
- Projected a leadership role onto the students to guide them through each subject and problem.

**Penn State Global Programs***International Student Orientation Leader***University Park, PA***Aug 2014-Sep 2014*

- Helped incoming international students with information and resources for their successful arrival on campus.

**RELEVANT SKILLS**

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- **Programming Languages:** Python, Java, C++, C#, LaTeX
- **Operating Systems:** Windows, Linux, UNIX-based systems
- **Software:** MATLAB, COMSOL, FeNiCs, Mathematica, Maple
- **Languages:** English, French (Conversational), Reading Knowledge of Latin.

**AWARDS AND HONORS**

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- GEM Fellow, 2022
- Graduate Tuition C/startup Research Grant, New Jersey Institute of Technology, 2021
- Member of Tau Sigma Honors Society for Transfer Students, 2016
- Dean's list, Rutgers University, 2016-2018

**PUBLICATIONS**

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Ozochiawaeze, General, "Finite element modeling of underwater acoustic environments and domain decomposition methods" (2021). Theses. 1837. <https://digitalcommons.njit.edu/theses/1837>