

# ZOE XIDAS

Greenlawn, NY • 516-480-0943 • zoeaxidas@gmail.com • linkedin.com/in/zoexidas

## Education

### Biomedical Engineering, Bachelor of Science

Fall 2021- Expected Spring 2025

University at Buffalo, The State University of New York

Presidential Scholar, Honors College

- GPA: 3.8
- Honors: Vice President of Tau Beta Pi– Engineering Honor Society, Dean’s List
- Relevant Courses: Cell Culture Lab, Biofluid Mechanics, Biomaterials and Mechanics, Bio-Signals, Bio-Imaging, Organic Chemistry 1, Biochemistry, Organic Chemistry Lab, Chemistry 2, Statics, Physics 2, Circuit Analysis, Calculus 3, Differential Equations, Applied Probability, Engineering Computations

## Engineering Projects

### Biomaterials Innovative Project Proposal

Fall 2023

*Project: Personalized Drug Screening Using Vascularized Stem Cell Models*

- Collaborated with my professor to design an innovative personalized device capable of housing vascularized stem cells for screening the effectiveness of cancer cell drugs
- Developed an experimental plan to test the accuracy of my device: isolate stem cells, develop a scaffold, and integrate artificial blood vessels for testing drug responses

### Biomedical Engineering “Needs” Design Project

Fall 2022

*Project: Pain with Self-Administering Subcutaneous Injections*

- Researched current self-injecting methods and designed a prototype tool which allows individuals to self-administer subcutaneous injections
- Presented findings to my professor and fellow students

### Engineering Impact Research Project

Spring 2022

*Project: The Failures of Organ Transplanting*

- Conducted a full analysis on organ transplantation and created a recommendation report on the most effective solutions for improving organ transplantation success

## Professional Experience

### EAS199 and EAS 202 Student Leader

Aug. 2023-Present

School of Engineering and Science (SEAS) at University at Buffalo, Amherst, NY:

- Mentored first year engineering students during EAS199 lectures and labs by answering questions and guiding them through an engineering thought process
- Collaborated with other student leaders, teaching assistants, and professors to teach and reinforce lecture content

### Partners for the Future Intern

Aug. 2020-Apr. 2021

Cold Spring Harbor Labs (CSHL), Cold Spring Harbor, NY:

*Project: In-silico Experiment of T-cell Development During Negative Selection*

- Interned in the Meyer lab, partnered with mentor Sarah Fumagalli, Computational Postdoctorate Fellow
- Researched and performed an in-silico experiment of T-cell development during negative selection
- Created simulations in Python to mimic the T-cell behavior
- Presented findings to CSHL leadership at the end of the program

### Women in Technology Intern

Sept. 2019-Nov. 2019

BAE Systems, Greenlawn, NY:

- Coded an Arduino and built circuits alongside BAE Systems experts
- Collaborated with a team to complete a final project— a temperature sensor system that mimics that of BAE’s real temperature sensor system
- Presented learnings and demonstrated a working temperature sensor system at the end of the program

**Library Page**

Sept. 2019-Feb. 2020

**Harborfields Public Library Children's Room, Greenlawn, NY**

- Arranged and returned books to shelves, organized shelves, decorated the Children's Room
- Assisted librarians in daily programs and led arts and crafts activities

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**Technical Skills**

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Programming Languages: MATLAB, Python (beginner knowledge)

Drafting Programs: SolidWorks

Computer Skills: Adobe Illustrator, macOS, Windows OS, MS Word, MS Excel, MS PowerPoint, Photoshop

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**Volunteering and Tutoring**

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**STEM Youth Mentor**

Spring 2023-Present

**STEM Youth Mentor Program, University at Buffalo**

- Taught a class of K-4<sup>th</sup> grade level students weekly at Westminster Community Charter School
- Instructed lessons aligned with Next Generation Science Standards to reinforce STEM classroom topics

**Math Tutoring**

2020-2021

- Tutored students grades 3-12 for math topics ranging from foundational math skills to college calculus