## Liam Duckworth

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### **EXPERIENCE**

**Towson University** Sep 2022 – Present

Undergraduate Machine Learning Researcher, Department of Computer Science

Towson, MD

- Had academic research paper "Deblurring as a Defense against Adversarial Attacks" accepted for publication by IEEE and will present research at the IEEE Cloudnet2023 conference.
- Works with cutting-edge machine learning frameworks such as PyTorch and TensorFlow to study the application and utilization of machine learning models in the field of privacy and security.
  - Research focuses on the use of adversarial gradients to disrupt classification models and potential defenses against such attacks.
  - o Researched, summarized, and evaluated academic papers based on their relevance to the research.
  - Designed, implemented, and tested machine learning models on research servers for evaluation of their performance.

# Frederick Gymnastics Club

Aug 2015 – Dec 2019

**Gymnastics Coach** 

Frederick, MD

- Worked with kids ranging in age from 2 13, at a variety of skill levels
- Planned and communicated daily activities and skills to maintain constant progression for students.
- Worked with many different groups of students weekly, requiring the ability to quickly assess skill levels and alter explanations of complex concepts for various learning styles.

### **EDUCATION**

Towson University Aug 2020 – Dec 2023

Bachelor's Degree in Computer Science

Towson, MD

- Expected Graduation: December of 2023
- Award: Towson University Merit-Based Provost Scholarship
- Organizations: Towson University Honors College

### Frederick Community College (Due Enrollment)

Jan 2018 – May 2020

Associates Degree in General Studies

Frederick, MD

- Award: 1st in the poster presentation category of the Maryland State Honors Conference.
- Organizations: Frederick Community College Honors College.

### **PROGRAMMING LANGUAGES**

#### Java

- Ability: Advanced
- Primary Purpose: Used for in-class projects, assignments, and honors college computer science research at Frederick Community College.

### **Python**

- Ability: Advanced
- Primary Purpose: Used for machine learning research and daily scripting tasks.

#### **JavaScript**

- Ability: Novice
- Primary Purpose: Used for in-class projects and final assignment for "Web-based programming" course.