

## EDUCATION

### Georgia Institute of Technology

(Current) | Projected Graduation Date: May 2025 | Atlanta, GA

### B.S. in Mathematics and Computer Science (GPA: 3.77)

#### Relevant Upper Coursework:

Deep Learning (Current); Database Systems (Current); Machine Learning (Current); Statistical Theory; Mathematics of Data Science; Information Theory; Introduction to Artificial Intelligence (Python); Design and Analysis of Algorithms; Probability Theory; Real Analysis I; Second Course in Linear Algebra; Data Structures and Algorithms

## SKILLS

**Programming Languages:** Python, Java, LaTeX, SQL **Libraries and Packages:** Scikit-learn, PyTorch, Keras, Pandas, NumPy

**Concepts:** Machine Learning, Deep Learning, Data Science, AI, Database Systems, Data Structures, Algorithms, OOP

**Other:** Passion, Analytical, Enthusiasm, Collaboration, Initiative, Communication

## RESEARCH EXPERIENCE

### RESEARCH EXPERIENCE FOR UNDERGRADUATES | RESEARCHER

Raleigh, NC | May 2023 - Aug 2023

- Attended the NSF and NSA sponsored Research Experience for Undergraduates program at the Dept. of Math at NC State University. I researched parameter estimation using biologically-informed neural networks and equation learning to obtain a mathematical model for an agent-based epidemiological model with added adaptive behaviors. All code is implemented in Python and used the PyTorch deep learning platform.
- Presented a poster on my research at the NC State Undergraduate Research Symposium.
- Awarded Best Poster Presentation for the Math and Statistics REU program.

## WORK EXPERIENCE

### UNITED STATES MARINE CORPS | INFANTRY ASSAULTMAN (E-5)

Camp Lejeune, NC | Oct 2016 - Oct 2020

- Led, mentored, and collaborated with a team of 12 Marines to prioritize mission accomplishment under hazardous working conditions and stressful environments. Acted as the senior representative of the Assault section for numerous training operations and two overseas deployments for a total of 15 months deployed.
- Served 4 years active duty in 2d Battalion 6th Marines, Fox Co. and honorably separated as a Sergeant/E-5.

## PROJECTS

### BIRD CLASSIFICATION WITH CNNs

MATH 4210 at Georgia Tech | JAN. 2023 - MAY 2023

Explored convolutional neural networks (CNNs) as a method of statistical learning on a multi-class image classification task. Implemented 3 distinct CNN models in Python using TensorFlow and the Keras deep learning library. The dataset consisted of approximately 88,000 bird images belonging to 515 different classes/species.

### SIMPLE RANDOM WALKS AND ENUMERATION

MATH 3235 at Georgia Tech | OCT. 2022 - DEC. 2022

As a student for Probability Theory, I created a paper surveying and explaining simple random walks under the perspective of a probabilistic and combinatorial approach. I demonstrated the Gambler's Ruin problem and showcased the method of multivariate generating functions as an enumeration technique under the symmetric case.

### WARRIOR SCHOLAR PROJECT

Warrior Scholar Project at Yale University | AUGUST 2020

College education preparation program for enlisted veterans transitioning to student life hosted by Yale University.

## ACTIVITIES

**Georgia Tech Climbing Club** Indoor Sport Climbing and Bouldering; We lead climb and boulder for recreation.

**Directed Reading Program** Studied enumerative combinatorics for Dyck paths under the guidance of a postdoctoral researcher.

## SECURITY CLEARANCE

Secret-level clearance (2016 - 2020), currently inactive

## AWARDS

### Academic Awards

John and Susan Traendly Scholar  
Zell Miller Scholar  
Dean's List

### Notable Military Awards

Certificate of Commendation  
Meritorious Promotion  
Good Conduct Medal