# STEVEN DEFALCO

### EDUCATION

# Stevens Institute of Technology

Hoboken, NJ

Bachelors of Science in Computer Science, GPA: 3.86

Sep. 2021 - Present

Marine Academy of Science and Technology

Highlands, NJ

GPA: 96.5/100, Activities: Key Club, National Honor Society, NJROTC

Sep. 2017 - Jun. 2021

#### EXPERIENCE

## Stevens Institute of Technology

Hoboken, NJ

Computer Science Course Assistant

Sep. 2022 - Present

- Instruct undergraduate students in "Introduction to Computer Science" and "Data Structures" courses.
- Collaborate with peers and the professor to design and maintain a comprehensive curriculum for 15-week semesters.
- Conduct weekly lab sessions to demonstrate new concepts and facilitate task-based learning, with the administration of over 25 carefully-crafted assignments to reinforce student understanding of the material.
- Held bi-weekly office hours, offering individualized explanations and practice tailored to students' needs, which contributed to a 98% pass rate among enrolled students.

# Pixel Light Digital Media

Lyndhurst, NJ

Software Testing & Quality Assurance Analyst

Jun. 2022 - August 2022

- Designed and conducted tests on subsequent software iterations of a real-time, artificial intelligence system to be used
  in a published app used to track foot traffic, dwell time, and interaction with convention booths.
- Tested distance prediction accuracy of the software with faces in 3-Dimensional space using variable conditions.
- Accomplished a 400% increase in relative accuracy of A.I. distance prediction while spearheading the testing.
- Final product predicts a distance which is within an average 2 feet of the true value (within effective 50 foot range).
- Deployed product for client to collect and monitor real-time interaction metrics of a commercial convention booth.
- Tracked over 51,000 impressions across 3-day deployment using product; analyzed dwell time and location to provide client feedback with the goal of optimizing booth interactivity and attention being given to primary displays.

### Coursework

**Deep Learning**: Graduate-level course with a focus on the design and implementation of modern deep learning models. Learned: Neural Network Design, Computer Vision, Natural Language Processing Used: TensorFlow, Keras, Python

**Software Development Process:** Course covering the essentials of developing better software in less time.

Learned: Development Life Cycles, Archiecture and Design, Development Methodoliges Used: GitLab, C++, OOP

Systems Programming: Course covering essentials of systems programming in C on UNIX systems.

Learned: Version Control, Network Protocol, UNIX Syscall Interface, Inter-Process Communication Used: C, Bash

Operating Systems: Course covering the internals and programming interface of modern operating systems.

Learned: Processes, Concurrency, Programming with Threads, Memory Management Used: Linux Kernel, C, Debian

Algorithms: Course covering design, analysis, and implementation of modern algorithms.

Learned: Space-time analysis; Algorithm Design; Graph, Numerical, Search, and Sorting Algorithms Used: C++

Data Structures: Course covering the design, implementation, and use cases of the fundamental data structures.

Learned: Complexity, Abstract Data Types, Testing, Trees, Maps, Sorting Used: Java, JUni

Other: Statistics, Linear Algebra, Discrete Mathematics, Principles of Programming Languages, Computer Architecture

### Skills and Technologies

Languages: Python, C/C++, Java, Bash, OCaml, R, ARM Assembly

Technologies: Git, Latex

#### Extracurriculars

**Alpha Sigma Phi Fraternity**: Vice-President of the Alpha Tau chapter of the Alpha Sigma Phi national fraternity. Responsible for overseeing and coordinating all events, leading conflict resolution, encouraging effective communication.

Tutor: Peer tutor for computer science courses including those listed under the Course Assistant experience above.