

# STEVEN DEFALCO

✉ stevendefalco@gmail.com · ☎ 732-778-4102 · in StevenDeFalco · 🌐 StevenDeFalco

## EDUCATION

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### Stevens Institute of Technology

*Bachelors of Science in Computer Science, GPA: 3.86*

Hoboken, NJ

*Sep. 2021 – Present*

### Marine Academy of Science and Technology

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

Highlands, NJ

*Sep. 2017 – Jun. 2021*

## EXPERIENCE

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### Stevens Institute of Technology

*Computer Science Course Assistant*

Hoboken, NJ

*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

*Software Testing & Quality Control Intern*

Lyndhurst, NJ

*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

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**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, Architecture and Design, Development Methodologies*      Used: *GitLab*

**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, UNIX*

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

Learned: *Processes, Concurrency, Programming with Threads, Memory Management*      Used *C, Debian OS*

**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, JUnit5*

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

## SKILLS AND TECHNOLOGIES

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

**Technologies:** Git, Latex

## EXTRACURRICULARS

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**Alpha Sigma Phi Fraternity:** Active member of Alpha Tau chapter of the Alpha Sigma Phi national fraternity.

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