

# Matthew Holzer

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## EDUCATION

The College of New Jersey | *Bachelor's of Science, Computer Science*

September 2022 – May 2026

- GPA: 3.63/4.0 | Dean's List: Fall 2022, Spring 2023, Spring 2024

## SKILLS

**Programming Languages:** C, C++, C#, Java, HTML, CSS, JavaScript, React.js, MATLAB, SQL

**Toolset:** Unreal Engine, Unity Engine, GitHub, SQL, Blender, Sony Vegas, Linux, Rokoko, Microsoft Office

**Concepts Learned:** Object-Oriented Programming, Computer Architecture, Operating Systems, Data Structures and Algorithms, Linear Algebra, Game Development, Virtual Reality Development, Motion Capture

## EXPERIENCE

**Undergraduate Virtual Reality Research Assistant**

2024 – Present

- Researched the effectiveness of Virtual Reality for sports training to increase accessibility and enable self-coaching without a personal trainer.
- Developed a virtual environment using Unity, C#, and motion capture technology from Rokoko to track user movement, allowing users to evaluate their training progress.

**Computer Science Peer Mentor**

2024 – Present

- Tutored students in Java, offering one-on-one guidance and support, while also assisting the professor in course-related activities.

## PROJECTS

**Unity Project: Where The Moon Meets The Sun**

2023 – Present

- Drive the conceptualization and execution of a tactical role-playing game using C# and Unity.
- Developed intricate algorithms dictating character movement within a grid-based environment.
- Designed distinctive enemy AI, enabling each unit to evaluate and execute the optimal action against the player.

**Social Security Organizer**

2023

- Demonstrated proficiency in C++ programming by designing a program that supported input, deletion, and searching of Social Security numbers and names.

**TCNJ Hackathon: Productivity Website**

2024

- Developed a productivity website with a team of four people by using HTML, CSS, and JavaScript.
- Allowed users to create a to-do list and check them off, journal entries, and usernames and passwords that were then stored in a database using MongoDB.

**Linux Terminal Project**

2024

- Designed a command line shell interface using C that supports child process execution, input/output redirection, working directory management, inter-process communication via pipes and other complex terminal commands.

## ACTIVITIES/LEADERSHIP

**Kappa Theta Pi Professional Technology Fraternity** | President

2023 - Present

- Responsible for presiding over organizational meetings and overseeing all major aspects of the organization.

**Boy Scouts** | Eagle Scout

2012 - 2021

- Led the successful execution of an Eagle Project which enhanced the facilities for the Community Food Bank.

**TCNJ Musical Theater** | Lead Carpenter

2022 – 2023

**Game Design Club** | General Member

2022 – Present

**Association for Computing Machinery (ACM)** | General Member

2023 - Present

**Diversity and Inclusion Group in Tech for All (DIGIT.all)** | General Member

2023 – Present