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**