

Matthew Holzer

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EDUCATION

The College of New Jersey (TCNJ)

September 2022 – May 2026

- Bachelor's of Science, Computer Science; Minor, Digital and Creative Technology
- GPA: 3.63/4.0 | Dean's List: Fall 2022, Spring 2023, Spring 2024

SKILLS

Programming Languages: C, C++, C#, Java, Python, HTML, CSS, JavaScript, MATLAB, SQL

Toolset: Unreal Engine, Unity Engine, GitHub, 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, TCNJ Ewing, NJ

Jan 2024 – Present

- Researching the effectiveness of Virtual Reality for sports training to increase accessibility and enable self-coaching without the need for a personal trainer
- Developing a virtual environment using Unity, C#, and Rokoko motion capture technology to track user movements and apply them to models with similar physical attributes as the user

Computer Science Peer Mentor, TCNJ Ewing, NJ

August 2024 – Present

- Tutoring students in Java, offering one-on-one guidance to build their understanding of key programming concepts.
- Assisting professor with course-related activities, including lab exercises and assignments

PROJECTS

Unity Project: Where The Moon Meets The Sun

December 2023 – August 2024

- Lead the conceptualization and development 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 units to evaluate and execute optimal actions against the player

Multi-User Chat Program

April 2024

- Designed and implemented a command-line based multi-user chat application on Linux using socket programming
- Developed server-client communication to handle multiple clients, ensuring smooth connections and disconnections while broadcasting messages to all users

Social Security Organizer

April 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

February 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

ACTIVITIES/LEADERSHIP

Kappa Theta Pi Professional Technology Fraternity President

October 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

September 2022 – December 2023

Game Design Club General Member

September 2022 – Present

Association for Computing Machinery (ACM) General Member

September 2023 - Present

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

September 2023 – Present