

Marlo M. H. Maddox Jr.

Computer Science Major

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EXPERIENCE

Undergraduate Student Research – Lincoln University – Lincoln University, PA

2021 Summer

University research project investigating innovative ways to promote the reduction of both energy utilization and waste production on campus by increasing student interest in holistic approaches to sustainability. Decided to explore using Virtual Reality (VR) as a communication tool for sustainable practices, and create a digital environment where students could reimagine their campus with less waste and a lower carbon footprint.

- Created 3D digital models of Lincoln University dorm rooms and campus areas using Blender software.
- Rendered 3D digital models in both the Unity and Unreal game engines. Evaluated the suitability of both game engines for implementation for the project.
- Presented project results at Eighth Annual HBCU Climate Change Conference in New Orleans, LA in April 2022.

Summer Intern – NASA Goddard Space Flight Center – Greenbelt, MD

2019 Summer

Designed and developed software to automatically extract information from a legacy database, and transferred the legacy data into a separate Commodity Off The Shelf (COTS) software system.

- Configured an integrated development environment (IDE) in Eclipse, and learned about general software development environments.
- Configured a GIT repository for the project, and learned about the importance of managing source code and version control.
- Utilized Python, as well as HTML for various display elements.
- Gained experience communicating with remote/distributed systems using HTTP GET and POST requests.

PROJECTS - RESEARCH - ACTIVITIES

Database Management Project – Lincoln University, PA

2022 Spring

Created a data model for a blood bank donation system. Created tables and multiple attributes to store metadata about the donor, recipient, and medical staff. Created an Entity Relationship (ER) Diagram and utilized primary and foreign keys to enforce relationships. Implemented data model using Sqlite.

Programing Languages

C++ (Intermediate)
C# (Intermediate)
Python (Intermediate)
SQL (Intermediate)
HTML/CSS (intermediate)

TECHNICAL SKILLS

General System
Administration (Windows)
(Intermediate)

Audio & Video Editing: Final
cut Pro X (Intermediate)

Gaming Engines: Unreal
Engine, Unity Engine
(intermediate)

3D Computer Modeling:
Blender (intermediate)

Graphic Arts: (Adobe)
-Draw, Photoshop,
Illustrator (intermediate)

Digital Photography

Mobile App Interface Development Project – Lincoln University – Lincoln University, PA

2022 Fall

Designed and developed requirements for a mobile application that would allow students to check the status of shared community resources in dormitories (e.g. restrooms, showers, etc) – while also providing in-application chat and maintenance request features. Used defined requirements to implement a mobile web application interface using Adobe XD. Used user interface and user experience (UI/UX) design patterns to create elements for authentication and navigation.

Game Development Project – Lincoln University, PA

2021 Fall

Developed and implemented a multi-platform compatible game using the Unity game engine. Utilized core game development assets including sprites, animations, game physics, gravity, and game control scripts to control game mechanics.

Personal Project – FiveM Server Development

2021 - 2022

Built, configured, and maintained custom server environments on Windows to run the FiveM gaming framework. FiveM is a gaming environment that allows developers to expand and customize the core functionality, behavior, and gameplay of the base Grand Theft Auto V title. Installed and configured custom assets in the server for the end-user experience.

Content Creation – Lincoln University Suited For Success (SuitedLUPA)

2019 - 2020

Served as a lead videographer and video editor for the SuitedLUPA student organization, with over 100 hours of footage edited using Final Cut Pro X (video editor). Also served as lead creative director during events, coordinating scenes, interactions, and after-event interviews.

Youtube Content Creation and Editing

2014 - Present:

Utilize a cinematic style of storytelling through video game play capture and video production. Video production activities include game-play capture, storyboarding, narration, and audio synchronization. Over 700 videos were uploaded with 140K views. Approaching 1K subscribers as of Spring 2022.

RELEVANT TRAINING

Amazon Web Services Educate: Introductory Networking Training

2022 Fall

Completed the “Getting Started with Networking training” and achieved the required scores on the post-course assessment that demonstrates the ability to describe different ways to manage a network and how to use an Amazon virtual private cloud to do so.

Amazon Web Services Educate: Introduction to Cloud 101

2022 Fall

Completed the Cloud Computing 101 training and achieved the required scores on the post-course assessment that demonstrates the ability to create simple cloud applications in a virtual lab environment. Having a fundamental understanding of AWS cloud core services and understanding the technical roles required for cloud success.

LEADERSHIP

Founding member of Lincoln University's first men's lacrosse team. Coordinated with the Athletic department as a freshman, and garnered interest across campus. Worked on establishing a club team which ultimately progressed to Lincoln University becoming an official member of the "Next Collegiate League" (NCL) with televised contests broadcast on the NextLevel Sports & Entertainment Network.

EDUCATION

Lincoln University, PA, – Bachelor of Science in Computer science (3.0)

2018 - 2022

Dr. Henry A. Wise Jr. High School, Upper Marlboro, MD

2016 - 2018