Sandy Demian

(216) 785-1700
sandy.demian@ucf.edu
https://sademian.github.io/

Interests

- Graphics
- Procedural Generation
- Environment Behavior
- Visual Effects

Technical Skills

- **Programming**
  C/C++ , C#, Python, Java, Swift, HTML, CSS, JavaScript
- **Software**
  Visual Studio, Unity, Unreal, Xcode, Photoshop, Maya
- **Source Control**
  Perforce, GitHub
- **Other**
  MS Teams, Jira, Discord, Slack,

Honors/Activities

- President's Honor Roll
- Dean's List
- ACM-W Member
- Society of Women Engineers Member

Education

- **Interactive Entertainment, M.S.** **December 2020**
  Programming Track GPA: 3.79/4.0
  Florida Interactive Entertainment Academy
- **Computer Science, B.S.** **December 2018**
  University of Central Florida GPA: 3.77/4.0

Experience

Izcalli of the Wind - Unreal/C++ [Group Project] **Jan 2020-Present**
Graduate Capstone Game

- An Aztec inspired game where Izcalli helps the wind God restore his temple by navigating obstacles using her wind powered hoverboard
- Programming: Spline tool for making energy slipstreams, environment interactions system to restore the environment from a neglected form, payload trial challenge system
- Tech Art: magic/energy materials, neglected material that can be easily used for multiple neshes, visual effects

DaVinci Buttonology - Unity VR/C# [Group Project] **Jan-May 2020**
In Partnership with Advent Health

- A VR game using the Oculus Quest to teach medical staff how to use the DaVinci Surgical machine to prepare for surgery
- Main contributions: The DaVinci machine behavior, game loop, some UI

Game Engine - C++ [Class Work] **Jan-May2020**

- A data driven game engine with Json scripting, custom runtime type identification, a multithreading event system, and unit tests
- Replacement for the standard singly-linked list, vector, stack, and HashMap

EEG 3D modeling Application - Python [Group Project] **Jan-Aug 2018**
Undergraduate Capstone Project

- Records EEG data using the Emotiv Epoc+ headset and uses it to build 3D models for artistic purposes
- Main contributions: graphics to display the 3D models, building the second 3D model from EEG data, attaching the model base and saving it to an stl file

Teaching Assistant, Intro to Computer Science **Jan-May 2018**
University of Central Florida, Orlando FL

- Explain Computer Science concepts to students in an intro programming class
- Help students in the labs and grade the weekly assignments