



# SANDY DEMIAN

Software Engineer II



## Contact

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## Programming

C++, Python, C#, Java, Swift,  
JavaScript

## Software

Visual Studio, Perforce, Frostbite,  
Unreal, Unity, Jira, GitHub,  
Xcode

## Education

### **Interactive Entertainment, M.S.**

Florida Interactive  
Entertainment Academy

December 2020

GPA: 3.80

### **Computer Science, B.S.**

University of Central Florida

December 2018

GPA: 3.77

## Honors/Activities

Graduated Cum Laude  
FIEA Director Fellowship  
ACM-W Member

## Work Experience

### **Software Engineer I/II – Electronic Arts**

May 2021- Present

#### **Special Projects in Applied Research and Collaboration (SPARC)**

Expanded on the replay capabilities of the Frostbite engine to allow for user generated content (UGC)

- Worked on major features from start to end including gathering requirements, system design, implementation, integration, and maintenance
- Collaborated with the Frostbite development team to develop and integrate engine modifications to support the project
- Collaborated with stakeholders and game teams to ensure requirements were aligned
- Integrated the project into one of the current titles using Frostbite
- Continued to enhance and maintain the project after a reduction in team capacity

### **UI Programmer Intern - Epic Games**

Aug 2020-Mar 2021

#### **Fortnite UI Team**

Worked on Fortnite's frontend and in-game UI

- Gained experience working on a large data-driven online game and navigating a large codebase
- Worked on Fortnite's quest system to extend and improve the NPC quests
- Collaborated with gameplay engineers to add UI support for a new feature
- Fixed bugs in various areas of Fortnite including the store, locker, HUD, and settings

## Other Experience

### **Izcalli of the Wind - C++/Unreal**

Jan-Aug 2020

#### **Florida Interactive Entertainment Academy – Capstone Project**

Collaborated with a multidisciplinary team of 16 on an Aztec inspired action-adventure game using a hoverboard movement

- Implemented gameplay features including directional force paths using Unreal splines and a payload challenge system
- Implemented an environment system to restore the environment from a neglected form to a magical form
- Worked on customizable materials to be used in the neglected environment system
- Created an in-editor replay playtest tool using network replication
- Created a two-level fog of war map and a mini map

### **Procedural Building Generator – C++/Unreal**

May-Aug 2020

#### **Florida Interactive Entertainment Academy – Personal Deep Dive**

- Implemented a building generator with random floorplans
- Added the ability to customizable number of levels, wall segment size, number of segments, and style including wall, windows, and door assets
- Created a spline editor to allow manual modification to the generated floorplan

### **Game Engine - C++**

Jan-May 2020

#### **Florida Interactive Entertainment Academy**

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