

# Sanjay Nambiar

Game Programmer

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## PROJECTS

### The Draft | UCF FIEA, Orlando — *Lead Programmer*

DECEMBER 2016 - PRESENT | Unreal Engine 4, C++, HTC Vive

#### First person combat meets Real Time Strategy in VR

- Developed game flow control, state management and global event system in Unreal Engine 4.15
- Implemented RTS style unit controller with path finding in C++ and added spline visualizations using Blueprints
- Designed and implemented interactions between animation state machine and AI behaviors
- Setup code quality guidelines and mentored team of 5 programmers in software architecture and C++
- Planned and prioritized sprint tasks for programmers in conjunction with the other team leads
- Worked in a multi disciplinary team of 15 consisting of artists, programmers and producers

### Anonymous Engine | UCF FIEA, Orlando — *Programmer*

JANUARY 2016 - APRIL 2017 | C++ 11, OpenGL, DirectX

#### A data driven game engine built in C++ 11

- Has unit test coverage and doxygen documentation
- Allows scripting of behaviors and configuration through XML
- Sprite rendering support in DirectX and OpenGL

### Ghost Chamber | UCF FIEA, Orlando — *Programmer*

JANUARY 2016 - APRIL 2017 | C#, Kinect, C++, Unreal Engine

#### An interactive hologram software plugin for AutoCAD

- Implemented gesture detection and integrated it with AutoCAD
- A custom hardware with onboard Raspberry Pi was built to display the hologram in a glass pyramid chamber

### Rapid Prototypes | UCF FIEA, Orlando — *Programmer*

SEPTEMBER 2016 - NOVEMBER 2016 | Unity 3D, Unreal Engine, Flash

#### 5 two week game prototypes made in teams of 5

- Implemented scripted gameplay events and camera motion
- Created game flow state machine
- Integrated dialogs and animations for characters in game

### Verlet Physics System | Personal — *Programmer*

JUNE 2016 | C++, SDL, OpenGL

#### A 2D verlet based physics simulation

- Implemented linear, angular, radial and pin constraints
- Can simulate rigid bodies, ropes and cloth with springiness

## SKILLS

**Languages:** C, C++, C#, 68000 assembly, Java

**Engines:** Unreal Engine 4, Unity

**Version Control:** Git, Perforce, Subversion

**IDEs:** Visual Studio, IntelliJ

**Frameworks:** OpenGL, DirectX, Steam VR, Vuforia for Unity, OpenCV

## WORK EXPERIENCE

### Software Engineer | Amazon

APR 2015 - JUNE 2016

Designed and developed software for compliance screening Amazon sellers.

Setup code quality guidelines for multiple teams.

### Software Engineer | IBM

JUNE 2011 - MARCH 2015

Developed a custom business intelligence reporting framework for IBM Fiberlink

## EDUCATION

### University of Central Florida, Orlando — *M.S. in Interactive Entertainment*

AUGUST 2016 - DECEMBER 2017

### Amrita School of Engineering, India — *B.Tech in Computer Science and Engineering*

JUNE 2007 - MAY 2011

4 year undergraduate program equivalent to B.S. in Computer Science.