

Matthew Hansen

Game Programmer

University of Central Florida

Florida Interactive Entertainment Academy

Gameplay/Generalist Programmer – “The Channeler” December 2015 – October 2016

- Prototyped puzzles that utilize the Tobii EyeX eye-tracking hardware in UE4
- Implemented core AI system for actors to patrol, chase, wander and flee
- Developed tools to log metrics and analyze how players used the eye-tracker
- Prototyped EyeX functionality to support head-tilting for camera controls
- Created custom filter for EyeX data in order to reduce jittering of the UI reticle
- Supported 3rd party feature requests and quality assurance fixes for publication
- Collaborated with a multidisciplinary team of 12 which included 3 designers, 4 artists, and 5 programmers

Engine Programmer – Data-Driven Game Engine

January 2016 – April 2016

- Created a data-driven game engine from scratch in C++ including replacement containers for the STL vector, list, and map
- Wrote an XML parsing system using the chain-of-responsibility design pattern and the Expat library
- Developed an asynchronous event publisher and queuing system that supports instantaneous or delayed delivery of messages

Gameplay/Audio Programmer – “Brain Maxx”

January 2016 – April 2016

- Built accuracy and precision flight system based on neurofeedback data collected
- Designed and implemented audio filters and effects based on EEG multipliers and collision events

Programmer – “Nyah”

November 2015 – December 2015

- Wrote a variant of “Super Hexagon” for PC in C++ with OpenGL and later ported it to the Xbox using DirectX
- Implemented cross-platform 2D collision logic
- Designed user input system with keyboard and gamepad support

General Dynamics Mission Systems

Modeling & Simulation Engineering Intern

October 2013 – July 2015

- Created a source code generator to express entities from a 3rd party system in Java beans and tools to allow for user-defined functionality
- Automated remote deployment of firmware updates for camera systems across the U.S.
- Redesigned a web-based learning management system to act as a template for our product line along with tools to allow for front-end customization of training modules
- Ensured stable and continuous software integration and testing among approximately 25 engineers across multiple companies
- Developed an event queuing and retry system for ground entity related messages in the LT2 foundation architecture
- Secret eligible through May 2024 (NACLC / OPM)

University of Central Florida

Teaching Assistant

January 2013 – May 2013

- Tutored students with object-oriented programming concepts
 - Evaluated student software implementations and architecture decisions
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Contact

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Linked In: [MatthewHansenDev](#)

Languages

C / C++
C#
Assembly
Blueprint
Python
Java
ActionScript 3.0
HTML / CSS
JavaScript
XML

Engines / APIs

Unity 5
Unreal Engine 4
Oculus SDK
Xbox Development Kit
Android SDK
WebGL
OpenGL
DirectX
SDL
SFML
XNA

Tools

Visual Studio
Eclipse
Git
Perforce
JIRA
Flash Develop
Microsoft Office

Education

University of Central Florida

Florida Interactive Entertainment Academy

M.S. in Interactive Entertainment
Expected graduation: December 2016

B.S. in Computer Science
2012 – 2015

Seminole State College of Florida

A.A. General Studies
2009 - 2011