

Matthew R. Hansen

Game Programmer

Contact

www.mhansen.me

<https://www.linkedin.com/in/matthewhansendev/>

Floyd County Productions, Inc.

Unity Developer – Unannounced Title

Jan. 2017 – Present

- Designed and implemented mechanical and story driven puzzles in C#
- Worked closely with artists and designers to build a universal UI for mobile devices
- Optimized memory performance to support low end hardware
- Developed plugins for Unity 5 to interface with iOS and Android APIs in Objective-C and Java

Little Turtle Learning Tools, LLC

Independent Contractor – Unannounced Title

Aug. 2016 – Dec. 2016

- Architected systems level structures and algorithms to support gameplay development
- Established core game loop by implementing a series of educational mechanics in Unity (C#)
- Integrated in-app purchasing system

University of Central Florida

Florida Interactive Entertainment Academy

Gameplay/Generalist Programmer – “The Channeler”

Dec. 2015 – Nov. 2016

- Implemented gameplay puzzles that utilized Tobii eye tracking hardware in UE4 (C++ & Blueprint)
- Established foundation for the AI system by implementing patrol, chase, wander and flee states
- Developed tools to log metrics and analyze how players used eye tracking hardware
- Created custom filter for eye tracking data in order to reduce jittering of the UI reticle
- Redesigned menu systems to work with keyboard, mouse, and gamepad input devices

AI Programmer – Traffic Simulator

May 2016 – Aug. 2016

- Designed a system to create dynamic road networks using C++ and SDL
- Wrote sensor components and steering behaviors for autonomous agents
- Implemented A*, BFS, greedy best-first, and Dijkstra’s pathfinding algorithms

Engine Programmer – Data-Driven Game Engine

Jan. 2016 – Apr. 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 Expat
- Developed an asynchronous event publisher and queuing system that supports instantaneous or delayed delivery of messages

Programmer – “Nyah”

Nov. 2015 – Dec. 2015

- Wrote a fast-paced avoidance game in C++ and implemented cross-platform collision logic
- Ported from PC (OpenGL) to Xbox (DirectX)

General Dynamics Mission Systems

Modeling & Simulation Engineering Intern

Oct. 2013 – Jul. 2015

- Created a source code generator for expressing and modifying entities in internal tools
- Automated builds, test procedures, and remote firmware deployments
- Developed event queue and retry system for entity states in the LT2 foundation architecture

Languages

C / C++

C#

Assembly

Blueprint

Python

Java

ActionScript 3.0

HTML / CSS

JavaScript

XML

Engines / APIs

Unity 5

Unreal Engine 4

Tobii Eye Tracking

Oculus SDK

Xbox Development Kit

Android SDK

WebGL

OpenGL

DirectX

SDL

SFML

XNA

Tools

Visual Studio

Xamarin

Eclipse

Git

Perforce

JIRA

Flash Develop

Microsoft Office

Other

Secret clearance eligible through May 2024

(NACL / OPM)

Education

University of Central Florida
Florida Interactive Entertainment Academy
M.S. in Interactive Entertainment
Aug. 2015 - Dec. 2016

University of Central Florida
B.S. in Computer Science
Jan. 2012 - Jul. 2015

Seminole State College of Florida
A.A. General Studies
Aug. 2009 - Jul. 2011