# **Anthony Nicholas**

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# **Objective**

To work as a senior gameplay programmer on exciting and innovative games.

#### **Technical Skills**

## **Languages & APIs**

- C, C++, C#, Java
- XML, LUA, jQuery
- Win32, Unix Sockets
- .NET Framework, LINQ
- JavaScript, HTML 5, CSS

#### **Editors & Environments**

- Unity
- Autodesk Maya
- Octane Engine
- Perforce/Tortoise SVN/TFS
- MS Visual Studio, Eclipse, Qt

#### **Shipped Titles**

• Hot Wheels: World's Best Driver

NASCAR: Unleashed

Cars 2: The Video GameHot Wheels: Track Attack

• The Clique: Diss and Make Up

# **Work Experience**

## Software Developer - ECS, Orlando, FL

(November 2013 – Present)

- Built state-based AI for interactive roaming NPCs that visited Points of Interest
- Created a native-screen-sharing application utilizing C++, LibCURL, and LibVLC
- Implemented a C# script to render a streaming-screen-share video onto a texture in Unity
- Made an informational NPC that pulled FAQ data from a database
- Aided in VM creation that ran project servers and allowed for build redeployment
- Developed a C# wrapper for Chromium Embedded Framework to display web browsers in Unity
- Led a project to retool an existing application for training scenarios, and programmed on-demand avatar swapping and the following UIs: authentication, server lobby, and scenario creation

# Generalist Programmer – Firebrand Games, Melbourne, FL

(2010 – April 2013)

- Implemented drafting Artificial Intelligence behavior
- Created look-at matrix operations for flying drone Artificial Intelligence
- Generated front-end 2-D and 3-D user interfaces and heads up displays (HUD)
- Worked with artists to create 2-D/3-D visual effects, blended animation, and physics support
- Wrote automated build scripts with CruiseControl managed continuous-integration build server
- Utilized 3-D ray casting, half-space testing, and matrix math to develop a physics-based drift mechanic
- Fixed HUD for varying resolutions and touchscreen support on the upcoming Hot Wheels: World's Best Driver for the Android platform
- Developed online leaderboards for PS3 and Xbox 360, Wi-Fi systems for embedded systems, and setup multiplayer and split screen multiplayer game modes

## Other Relevant C++ Experience

- Rendered 3-D graphics for Android using C++ and developed a game engine
- Used TCP for a multi-user chat program including server and client code, and UDP for a multiplayer tank game including server and client code
- Have Artificial Intelligence experience for 3-D flocking behaviors, A\*, Dijkstra, Neural Network, predictive targeting, and state-based behaviors
- Wrote character dialog systems, quests, and a quest tracking system that managed scripts at runtime

## **Education**

**Bachelor of Science in Computer Science** 

(2008)