

# JERAD DUNN

*Experienced Software Engineer with a passion for delivering high-quality interactive entertainment experiences*

## PROFESSIONAL EXPERIENCE

**Electronic Arts Tiburon, Orlando, Florida**

2011 - 2017

**Madden NFL 13** (2012, PlayStation 3 / Xbox 360)

- Implemented new sky rendering method (also leveraged by NCAA 13 and NCAA 14)
- Ported over and enhanced NCAA's create-a-coach functionality

**Madden NFL 25** (2013, PlayStation 4 / Xbox One)

- Worked with tech leads to implement system to render, animate, and script behaviors of large numbers of simple AI agents
- Improved visual fidelity of sidelines and crowds (new console platforms only)

**Madden NFL 15** (2014, PlayStation 4 / Xbox One)

- Worked with tech leads to design/implement system to drive characters' postplay reactions/behaviors on the field in real time
- Enhanced studio-wide proprietary realtime animation system implementation/toolset; adding features and resolving bugs

**Madden NFL 16** (2015, PlayStation 4 / Xbox One)

- Led small, multi-discipline team responsible for sidelines, crowd, and character postplay reactions/behaviors
- Collaborated with production to maintain feature backlog and formulate/follow development schedule
- Collaborated with discipline leads to clarify requirements and ensure the code being developed addresses the needs of the game

**Madden NFL 17** (2016, PlayStation 4 / Xbox One)

- Led small, multi-discipline team responsible for the narrative portion of the title installation experience
- Enhanced existing engine tech/tools to allow designers to script portions gameplay in order to create a specific narrative
- Improved engine to allow more cinematic effects to be achieved in-engine instead of relying on pre-recorded videos
- Repurposed existing engine tech to allow design to create UI-driven branching story-driven cinematics

**Madden NFL 18** (2017, PlayStation 4 / Xbox One)

- Transitioned Presentation systems to Frostbite engine, maintaining parity and providing technical improvements when possible
- Refined Presentation content creation toolsets and workflows, leveraging new engine tech when possible
- Served as generalist/firefighter to provide additional support to resolve various high-priority issues in different areas as needed

**Yamo Studios, Orlando, Florida**

2017 - present

**Project Finale [Working Title]** (PC - Unity)

- Served as temporary software engineering consultant to a small indie team of two non-engineers
- Mentored an aspiring programmer by teaching architecting, refactoring, and debugging techniques; instilling best practices
- Implemented core systems (control flow, data saving/loading) and gameplay features; moved systems to data-driven models
- Enacted plan to produce working first-pass demo to prove out gameplay concepts and identify any potential gaps in design

## OTHER PROJECTS

**Autotron** (PC) - *Breeding a neural network AI to play Robotron: 2084*

2017 - present

- Extended open-source Multiple Arcade Machine Emulator (C++) to provide additional Lua scripting functionality
- Scripted Lua mechanism in MAME to load neural networks and use them to play Robotron: 2084
- Wrote C# program to generate neural networks, feed them to MAME, then evaluate and breed them using a genetic algorithm

## TECHNICAL COMPETENCIES

*Working Knowledge Languages*

C/C++, C#, Lua, Python, Java

*Software Experience*

Perforce, Hansoft, Unity, Git, DevTrack, JIRA, Code Collaborator

*Miscellaneous*

Peer Code Reviews, OOP, Technical Design Documentation, Console Development, Scrum

## EDUCATION

**Master of Science in Interactive Entertainment**

2011

Florida Interactive Entertainment Academy

University of Central Florida, Orlando, Florida

**Bachelor of Science in Digital Arts and Sciences** (*Cum laude*)

2009

Department of Computer and Information Science and Engineering

University of Florida, Gainesville, Florida