

Nicholas Benson

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education

2012 - 2016

Massachusetts Institute of Technology. Humanities & Engineering with Computer Science and Comparative Media Studies, minor in Music. Performances with the Chorallaries of MIT, Shakespeare Ensemble, and Chamber Chorus.

experience

2016 July - Present

Leap Motion - Applications Team. Building developer tools, artist tools, 3D assets, models, shaders, interfaces, animations, physics, and interaction designs for Leap Motion's demos using the Unity game engine. C# (Mono) primarily, some C++, Rust, and HLSL work for native performance. Selected projects explained in further detail below.

2016 Sept - Present

Leap Motion - Interaction Engine. From a beta version of the Interaction Engine containing the base soft-interaction algorithms, led the Applications Team to releasing v1.0, which added support for GPU-accelerated "hover" state tracking per-element, a grasping heuristic, and a core set of UI elements integrated with Unity physics, built within the engine.

2016 Sept - 2017 Jan

Leap Motion - Blocks (v2). Redesigned Leap Motion's Blocks demo for mobile VR platforms, adding networked multiplayer play, modifying aesthetics for better mobile performance, and added musical feedback.

2016 Spring term

6.UAR: Undergraduate Research. Currently developing a muscle simulation and control system using Unity and NARX neural networks trained in MATLAB from simulation data.

2015 Fall term

MIT Computer Science and Artificial Intelligence Laboratory - Genesis Group. Designed and developed a story-authoring tool to make it easy for native English speakers to write stories in "Genesese," a grammatical subset of English understood by the Genesis AI.

2015 Summer

Blizzard Entertainment. Tools team intern for World of Warcraft. Designed and developed a database history management tool, integrated it as C# .NET into a C++ MFC application codebase using managed C++ interop.

2015 Spring term

21M.359: Interactive Music Systems. Produced Kami, an Oculus VR and Leap Motion game, as the final project for Eran Egozy's class in interactive music systems.

2014 Summer

Tufts University - Laboratory for Playful Computation. Designed and developed a time-keeping server to synchronize musical commands from client machines using the OSC protocol. Extended codebase of the Laboratory's open LEGO robotics platform, BlockyTalky, to support musical commands over OSC.

portfolio

Gifs, that eternal medium, and links from prior projects, can be found on my website.
<http://omono.me/>