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JACOBDHART@GMAIL.COM

JACOB D. HART

STRENGTHS

- 8 years professional game development experience
- Fluent in C# and C++, proficient in C and JavaScript
- Deep understanding of the Unity game engine
- Daily experience with common software engineering practices and tools (Perforce, Mercurial, agile, bug tracking)

PROJECTS & WORK EXPERIENCE

Self-Employed
Software Engineer, 2016-present
- Authored a retro-style 3D shooter engine from first principles
- Wrote and deployed Burger Run, an infinite runner game for Android

Batman: Arkham Underworld
Turbine, Inc.
Senior Software Engineer, 2013-2016
- Authored the in-game base builder, which designers and players utilized to create content
- Worked closely with designers to develop AI, pathfinding, and perception systems
- Wrote an intuitive, momentum-based camera controller for multi-touch devices
- Architected localization system

Mind Your Own Budget
K20 Center
Lead Developer, 2012-2013
- Authored room customization system
- Translated design to detailed technical specifications
- Organized group code reviews and mentored junior developers

Energy and Me
K20 Center
Lead Developer, 2011-2013
- Wrote and maintained world editor
- Responsible for Windows and OS X build servers
- Implemented launcher and patching system

Pathways to Success
K20 Center
Software Developer, 2009-2011
- Designed and implemented system for dynamically generating 3D buildings
- Wrote radiosity solver to generate lightmaps that look great, even on commodity hardware

SELECTED PERSONAL PROJECTS

- *Gray Day (2016):* A tape echo simulation inspired by the classic Echoplex and Roland Space Echo units
- *Cubephoria (2012):* A music-controlled, beat-aware LED cube
- *PyDNA (2011):* A program that uses genetic algorithms to mimic an arbitrary data source
- *Music Painter (2008):* An Xbox 360 game that dynamically converts the player's drawings into music

Source code and videos are available at jake-hart.com.

EDUCATION

University of Oklahoma, Bachelor's degree in International and Area Studies