

SCOTT HILBERT

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Professional Experience

TiVo, Inc.

January 2011 – Ongoing

UI Software Engineering Contractor

- Developed user interface features for the TiVo Premiere DVR family, a consumer set-top box platform with constrained memory and CPU resources
- Areas of responsibility include UI for scheduling recordings, searching for content, and displaying detailed preview information when the user highlights a list item
- Developed utilities to improve developer efficiency, including templated code generation utilities and a utility to inspect the UI scene graph at runtime, dramatically simplifying diagnosis of UI layout issues

TicBits Ltd.

October 2010 – December 2010

Contractor

October 2011 – December 2011

- Developed custom iPhone Sudoku application (2010), and later ported to iPad (2011)
- Developed puzzle generation software to generate puzzles of various difficulty levels
- ~8,000 lines of Objective-C

Corsair EDA, Inc.

January 2010 – October 2010

Contractor

- Developed custom web application for managing lottery tickets for individuals and lottery pools, including aggregating winning number feeds and notifying users of their winnings
- ~16,000 lines of Python

Skytrex Systems, LLC

August 2009 - July 2010

Contractor

- Contributed to development of flight planning iPhone application for general aviation pilots.
- Implemented feature to fetch, parse, and display temporary flight restriction zones defined by the FAA, involving boolean operations on arbitrary 2D shapes (Objective-C / iPhone)
- Implemented tool to define boundaries and projection basis information for chart images (C# / PC)

Vicious Cycle Software, Inc.

Summer 2007, 2008, 2009

Junior Engine/Tools Programmer

- Wrote photon mapping system for real-time global illumination prototype
- Implemented mesh level-of-detail system for Vicious Engine 2
- Implemented 3D modeler-style transform widgets in Vicious Editor
- Added polish features (e.g. undo, multiple selection) to shader graph editor
- Wrote faster UV unwrapping system for map geometry
- Implemented state transition system for destructible physics objects
- Implemented asset reporting system to track down wasteful models, textures, shaders and sounds

Education

North Carolina State University

December 2009

- B.S., Computer Engineering & B.S., Electrical Engineering
- Major GPA: 4.0/4.0; Overall GPA 3.45/4.0
- Graduated Cum Laude; Dean's List (Perfect 4.0) Spring 2007 - Fall 2009
- Senior project: Wireless digital water flow controller using 802.15.4 and variable-speed Pentair pool pump

Technical

- Languages: C/C++, Python, C#, Cg/HLSL, Objective-C, ActionScript 3
- Technologies: STL, Direct3D, OpenGL, OpenGL ES, Win32 API, networking (sockets), .NET, XNA, Python C API, Newton physics, OGRE, OpenAL, wxWidgets, Django, UIKit
- Tools: Visual Studio, Eclipse, IntelliJ IDEA, Subversion, git, 3D Studio MAX, Photoshop, SWIG, Yacc/Bison, ANTLR
- Major platforms: Windows, Linux, Xbox 360, iOS