Matthew F. Pohlmann

3760 S. Figueroa St. #329 • Los Angeles, CA 90007

GitHub: github.com/Valakor *Phone*: (702) 343-3099

LinkedIn: linkedin.com/in/matthewpohlmann *Email*: pohlmann@usc.edu

EDUCATION

B.S. Computer Engineering and Computer Science *GPA: 3.89*

Video Game Programming Minor

University of Southern California *Expected Graduation May 2016*

Related Coursework:

Software Development	Digital Logic and Circuits	Video Game Programming
Object-Oriented Programming	Data Structures	Computer System Organization

SKILLS

Languages: C#, C++, Java, Swift, Objective-C, HTML, CSS, Verilog, ColdFire Assembly, Erlang

Tools: Microsoft Visual Studio, Xcode, Eclipse, git, SVN, Unity3D, Xilinx, Modelsim, Qt, Leap Motion, Oculus Rift, cocos2D, XNA

Platforms: Windows 7/8.1, Apple OSX, iOS, Android, Ubuntu

WORK EXPERIENCE

University of Southern California, Teaching Assistant for ITP 435 (C++) *August 2014 - Present*

- Providing help, feedback, and grading for students taking ITP 435 – Professional C++
- Working with students during lab time and office hours to answer questions they may have about subjects ranging from pointer logic and design patterns to more advanced topics of C++11

Robocoin, Software Engineering Intern (C#, C++) *Summer 2014*

- Integrated new ATM hardware for Robocoin Kiosks by developing a multi-tiered native C++ to C# dll
- Marshaled complex structs from the Win32 API to and from unmanaged memory to be used in a C# WPF application running on Robocoin Kiosks
- Utilized the Windows WndProc function for asynchronous callbacks, and multi-threading for non-blocking dll method calls

PROJECTS

BulletTime (Gameplay Programmer – C#, Unity3D, Oculus Rift) *HackSC 2014*

- Acted as gameplay and game mechanic programmer in a team of 4 for a 3D puzzle-platformer game made for the 2014 HackSC hackathon, making it into the top-ten hacks and winning best Oculus Rift Hack
- Spent 36 hours programming a proof of concept and one extensive playable level in which the player's lack of movement in 3D space stopped time (and all objects), and vice versa

Juiced (Gameplay Programmer – Objective-C, Cocos2D, Xcode) *ITP 382 – Mobile Game Development*

- Programmed the game's main mechanics and multitouch features as part of a team of four for a fast-paced iOS game with multiple game modes where the player throws discs into quadrants of the same color
- Optimized frame rates on older (and newer) devices by way of sprite batching and particle batching to reduce draw calls and allow more discs on-screen simultaneously for even crazier gameplay

SimCity201 (Lead Programmer – Java, Eclipse) *CSCI 201 – Principles of Software Development*

- Acted as lead programmer and designer for a four-person project utilizing multithreaded agent methodology and singleton and factory design patterns – see GitHub for source code
- Built a virtual 'SimCity' where people have homes, can go to eat at restaurants, can go to the market to buy food or a car, and can work all within a graphical Java application

Text Editor (Xilinx Engineer – Verilog) *EE 201 – Introduction to Digital Circuits*

- Designed and built a basic text editor as part of a two-person team for a Nexys-3 Spartan 6 FPGA with keyboard input and VGA output – see GitHub for source code
- Integrated PS/2 and VGA modules in a top-level design to interpret keyboard key codes to display text on a VGA monitor, scroll text, change text color, resize text, and store the current document in a virtual RAM