Trevor Diem

Video Game Software Engineer
trevordiem@gmail.com
trevordiem.com
(775) 997 8961

[Objective] To obtain a challenging and rewarding position as a computer engineer utilizing innovative and emerging technologies, preferably in video game development.

[Professional Experience]

Nihilistic Software, Inc. January 2010 - Present

Gameplay Programmer - *Call of Duty: Black Ops: Declassified* April 2012 - Present
PlayStation Vita

- Implemented the first-person player movement and aiming controls to put the Call of Duty experience on the PS Vita
- Worked with a designer to implement CoD aim features including: ADS Snapping, Aim Friction, POI Stickiness (Aim Assist), Melee stab tracking, etc. (3D math heavy)
- Covered other UI pickup tasks, localization issues, occasional physics issues, etc.
- Created a Python script to automatically scrub tool generated files to generate and publish tool documentation to our Confluence Web Portal using Selenium browser automation middle-ware
- 6 month development cycle

Gameplay Programmer - *Resistance: Burning Skies* February 2011 - April 2012
PlayStation Vita

- Implemented the first-person player movement and aiming to give a Resistance feel including Aim Assisted bullets, Aim Friction and target acquisition
- Worked with our UI designer and Network Engineer to implement Party matchmaking
- Implemented use of the ScaleForm DirectAccess API to drive UI widgets from C++ (The ScaleForm ActionScript interpreter was much too demanding for the PlayStation Vita)
- Worked with our UI lead to construct a useful data integration between C++ and ActionScript

Gameplay Programmer - *PlayStation Move Heroes* January 2010 - February 2011
Playstation 3

- Worked closely with the LDs to set up modular script objects to be used in Maya to edit various scenarios. Each modular script was able to show the designer the current state of the script in real-time and provide a 3D visual representation in-game
- Took ownership of the melee motion controls using and modifying the dollar gesture recognizer to be used with the PlayStation Move wand

Independent Game Engine Project - *the productiveEngine2* 2008 - Present
PC & iOS

- Written in C++ and cross platform with PC (DirectX 11) and iOS devices
- Architected a pure component system with an even system for message passing
- The main focuses are prototype iteration time and rendering.
- Ongoing development of a from-scratch 3D game engine, this project replaces the productiveEngine which was entirely re-written in my free time starting 2008

3G Studios, Inc. February 2008 - November 2009

Lead Programmer - *Jillian Michaels' Fitness Ultimatum 2009*
Nintendo Wii

- Utilization of the Wii Balance Board and continual motion controls
- Worked on the title from start to finish and delivered the final product on time
- Worked on both engine components and gameplay mechanics
- Managed the Wii application build/test process
- Ensured NoA LotCheck compliancy
- 5 month development cycle

Engine / Gameplay / Tools Programmer – Unannounced Titles
PC, PS3 & Wii

- Improvement of current cross platform PC/PS3/XBOX360/Wii Game engine
- Implemented cross-platform sound solutions for Microsoft XACT3, Microsoft Xaudio2, FMOD EX and Wii AX audio libraries
- Ported current asset management tool to C#/WPF application
- Wrapping of C++ engine components in C# to be run on Portable Dot Net
- Management of the effects editor for creation of in-game particle/sound/light/force effects
- Implementation of UI flow and In-game UI
- Integration of the x264/FFmpeg library
- Management of an auto-asset building tool used by a scheduler

[Skills]

Programming Languages:

C++, C, Python, C#, Java, Assembly, SQL, Stored Procedure Programming

Tools:

MS Visual Studio, PerForce, Radix Studio/Code Warrior for Wii Software Development, Eclipse, MS Visual Source Safe, Been known to have used: Maya, 3DS Max, Adobe Photoshop, XSI Mod Tool

Methodologies/APIs:

ScaleForm DirectAccess, DirectX 11, Microsoft XACT3/Xaudio2, FFMpeg, Wii OS API, Some Maya plug-in, OO Design, GoF Design Patterns, Multi-Tier Web Applications, OpenGL, Assembler and Compiler Programming and Implementation

Database Systems:

MS SQL 2005/2000, MySQL

Other:

PC Building and repair, electronic circuitry and Arduino development, technical light and sound experience, RSA Security administration

[Education]

University of Wisconsin-Whitewater, Whitewater, WI – BBA, December 2005

Major: MCS (Management Computer Systems)
Major: CEUT (Computer End-User Technologies)
Dean's List: 5 Semesters

[Non-Game Development Experience]

HDR Photography http://flickr.com/pr0duct1ve

- Main focuses are ofinanimate objects such as buildings, cars and airplanes
- Feel free to take a look at the site listed just above

Electric Guitarist - Nihilistica

- Played electric guitar for the Nihilistic studio band (basically 3 programmers, 1 producer and our lead audio person)
- We performed mostly metal cover songs and played at release parties

Generac Power Systems, Waukesha, WI June 2001 - March 2007

eProgrammer Contractor

- RSA Security Maintenance/Upgrade
- Microsoft SQL Database Data Flow Documentation
- Maintaining several B2B and consumer websites
- Maintaining nightly scheduled database processes

PC Tech / eProgrammer

- Developed a B2B 2-tier dealer forecasting application using ASP .NET and MS SQL. This application was developed in conjunction with the UW-Whitewater Systems Analysis and Design class
- Developed real-time order number retrieval using IBM WebSphere technology (JavaBeans, JavaServlets, SOAP, WebSphere Application Server and RPG) for use with Generac's online product catalog
- Aided in the repair and maintenance of PCs and other office systems including Web and Database Servers
- Aided in the integration of Avaya Message Manager into the existing voice mailbox system
- Developed a 3-tier web based software tracking system to manage Generac's software licenses using ASP/ Visual Basic/MS SQL and integrated it into their intranet
- Managed over 3,000 software licenses and input them into the software tracking system