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Steve Riley

Veteran 3D, gaming and simulation software developer ready to create mobile, console, web or PC applications for clients who need dependable, innovative, timely programming solutions and development.

SPECIALTIES:

3D/Software Development

- Specializing in software development using C++ and C#, scene graphs, optimization techniques, gaming engines and frameworks for consoles, PC's and mobile devices.

Web Development/Internet Marketing

- PHP, JavaScript, WordPress development as well as code driven pay per click optimization saving

customer over 20% of monthly $10,000 ad expenditures.

- Recent utilization of AI/Machine Learning Frameworks including tensorflow and pytorch, YouTube content creation for School of AI

SKILLS:

- Languages: C++, C#, Java, JavaScript, 8086 Machine Language
- 3D API's: WebGL, OpenGL, Unity 3D, Unreal, Id Tech 4, Three.js, Direct3D, OpenSceneGraph
- Environments: Windows, Web, Android, Linux, Microsoft, Sony and Nintendo Game Platforms

EXPERIENCE

"In 2014-2015 I worked with OpenWhere on satellite scheduling and imaging software using GDAL.org libraries in C++ to geo rectify and schedule satellite imagery as well as using the cesiumjs.org javascript and WebGl libraries to visualize satellite paths for profitable on demand satellite imagery vending machine technologies. We also used Nasa Java WorldWind libraries to demonstrate potential applications to clients"

"I've worked with DreamWorks Animation on their next gen character animation rigging tools and pipeline operators. In 2009-2010 I used the ID Tech 4 Engine to create a mass casualty simulator for MedStar. I have developed and managed development for Microsoft, Sony and Nintendo consoles as well as Android and Linux variations. My background includes game industry work with Legend Entertainment, Aeon Entertainment, and Paradigm Entertainment/Atari on the

development of six shipping entertainment titles. While the Director of Software Development at All-Source Processing Inc., I worked with hardware engineers to support OpenGL through Mesa with custom built ASICs that used a voxel based terrain rendering technique. I have developed a number of analysis techniques for situational awareness including shadow volume support and dynamic terrain generation from DTED and CIB imagery files for the intelligence and homeland security community. Recent work with undisclosed AI startup in connection with concepts generated from Siraj Raval's school of AI"

Eureka 3D, Inc. Washington DC — *Senior Software Developer*

August 2005 - PRESENT

• Programming and project management tasks associated with contracts for decades of development efforts related to medical simulations, network information assurance, retail product advertising, GIS real-time tracking systems and 3D entertainment products.

• Developed projects programmed for real-time 3D, mapping, cost analysis as well as web-based frameworks.

- C#, C++, PHP, SQL, Objective C, JavaScript, Id Tech 4, Unity 3D, Unreal, Emscripten, WebGL, Visual Studio, Eclipse, Android IDE, Subversion, GIT, Windows 7-10, Ubuntu Linux, Android, iOS, HTML 5, CSS 3.0, Jira, Keras, Tensorflow, Python

Undisclosed AI Project for startup - 2018-2019

• Evaluation and prototype work with Keras, Tensorflow and Beyond Verbal AI Frameworks for building emotion and sentiment enabled lifelogging app. This app cross correlates facial action coding, vocal intonation, text and speech to text sentiment analysis to give user insight into activities and interactions that facilitate maximum happiness, productivity and flow state

- C++, Python, Tensorflow

InfoReliance, Inc. - 2017

• Designed and developed code to read industry standard ioc (indicator of compromise) files, parse and evaluate business logic and establish hooks to Windows, Linux and Mac for malware analysis and detection in C++ using QT, XPath, SQLite and custom query strategies to analyze and aggregate potential predicate candidates

• Created interface and strategy for deploying ioc module as core component of new malware detection enterprise suite to be used by US Army and intelligence gathering groups

• Coordinated design, development and testing with developers using Atlassian agile management tools

- C++, QT, XQuery/XPath, SQLite, Ubuntu, Windows 7-10, Git, Jira, Confluence

HHGregg, Inc. - 2016

• Evaluating and developing proposal, efforts and timeframes for enhancing/upgrading existing sales, point of sales and intranet tools for retail locations and integration with web sales solution and its backend.

These include a new modern handheld app for sales coordination, upselling, instant stock checking and product knowledge retrieval, notes and updates.

• Preliminary stage requirements analysis and recommendations underway deriving use cases and requirements from customer requests and existing layers of deployed software infrastructure.

Viva Creative - 2015

• Used Unity engine to build and enhance app in C# supporting conferences and speaking venues.

• Deployed solution built for Android and IOS using Unity's 2D, GUI and mapping capabilities for supporting real-time feed updates for conference attendees on conference room floor for status and updates of conference speeches, speakers, topics and locations.

- C#, Unity3D, IOS, Android, Windows 10, Git, Trello

Openwhere 2013 - 2014

• Integration of imaging technologies with WebGL based visualization tools, cloud and gpu optimization techniques involving Amazon cloud SDK and GIS toolkit GDAL

• Developed code interfacing with Amazon AWS cloud based virtual machines for scalable satellite based image analysis, ortho-rectification and postprocessing using and enhancing C++/C GDAL and other Open-source GIS libraries for automated optimized conversion.

• Developed web-based viewer based on javascript and Cesium WebGL based visualization library for end user clients.

- C++, Javascript, WebGL, OpenGL, GDAL, GIT, Amazon Web Services, GCC & Visual

Studio DreamWorks Animation SKG - 2012

• Contracted for the R&D character animation department working on the next generation tools to be used by technical directors for future films.

• Created a C++ model API that used pointer encapsulation to do automatic memory management and allow the technical directors to use pure objects exclusively in an effort to simplify their development process.

• Created various testing and optimization tools to enable their developers to view full model animations in real-time.

• Development in Red Hat Linux using the Intel Optimizing Compiler and GCC under an environment supporting latest non-draft C++ language specifications (C++ 03 and the latest versions of the Boost libraries).

- C++, OpenGL, Bamboo, Atlasian, Red Hat Linux, GCC, Intel Optimizing Compiler, Valgrind, Eclipse

MedStar Health/Sitel - 2010-2011

• Developed 3D mass casualty simulator for MedStar, Inc. - Code Orange (as featured in the Washington Post) utilizing the ID Tech 4 engine.

• Became quite proficient in use and implementation of coding, tool utilization and architectural framework

issues related to the engine itself and specific customizations.

• Upgraded the scripting and pcode engines as well as interacting with outside teams on potential support for additional AI infrastructure based on proven, cutting edge methods of deployed robotic agents.

- C++, Subversion, ID Tech 4 Engine, Visual Studio, 3D Studio Max, Windows Vista

Carney, Inc. - 8/2009 - 12/2009

• Further developed an award winning 3D network security simulator - Cyberops Defender using C# and Direct 3D.

• Added support for peer to peer network play over TCP/IP sockets.

- C#, Direct X, Visual Studio, Visual Source Safe, Windows XP

Dormia, Inc. - 2008-8/2009

• Created code based pay per click keyword bidding analysis too yielding more effective sales and goal customer website goal completion (a purchase or customer inquiry).

• Implemented a .net Nuke based network of selling websites.

• Saved customer $2000 of original $10000 monthly ppc advertising budget with significantly greater customer capture and sale rates.

• Managed and coordinated upgrades to existing Intranet and internal sales tools used at retail locations.

- .net, Google AdWords, Google Analytics, .net Nuke content management system.

IncrediMail - 2007

• Developed 3D screen-saver that integrated directly with IncrediMail's picture spooler library API to use custom user pictures.

• Reverse engineered source 3D studio Max implementation file original to create completely dynamic code based solution.

- C++, OpenSceneGraph, OpenGL, 3D Studio Max, Visual Studio, Windows XP

Pelican Mapping - 8/2005 - 2006

• Created extensive 3D capability extensions to Pelican's Talon situational awareness engine for Sanborn in their development of a complete 3D/2D mapping and real-time asset update system for the police Department of Dubai.

• Implemented shadow volume visibility, line of site awareness, asset placement and update tools, and motion controller models for input controls.

- C++, Managed C++, .net, OpenSceneGraph, OpenGL, Base Camp, Subversion, Visual Studio, Windows XP

Systems Engineering Lead, ITspatial, Inc. 1/2004 - 7/2005

• Developed for a data-fusion and visualization product that used 3D and 2D for information analysis and situational awareness in training and in the field environments.

• Developed analysis techniques for situational awareness for shadow volume support and dynamic terrain generation from DTED and CIB imagery files for the intelligence and homeland security community.

• Coordinated the production, testing and deployment of this product to the NSA, Department of Homeland Security, Darpa and Metropolitan Police Department.

• Helped company sell to FedIT for over $10 million in an all cash transaction.

- OpenSceneGraph, OpenGL, .net, C++, Managed C++, C#, Visual Studio, Visual Source Safe, Windows XP, Terra Tools, 3D Studio Max

Principal Developer, Buymoreproducts 4/2002 - 12/2003

• Developed software to take overstock books from vendors, do daily real-time competitive price analysis on each title using ISBN to check Amazon.com for competitive pricing information and to then upload and list these books on Amazon.com, Half.com and eBay generating average profit margins of over 120% per sale.

• Managed small team of assistants who packed and shipped books to customers.

- C++, PHP, Amazon Web Services API, Visual Studio, Windows XP

Lead Software Engineer, Paradigm Entertainment/Atari 6/2000 - 4/2002

• Lead two development teams as lead programmer of 15-20 artists and coders in working on a Snoopy Flying Ace Project for the GameCube and Mission Impossible: Operation Surma for the Xbox, GameCube and PS/2.

- C++, VisKit scene graph engine, Direct X, OpenGL, PS/2, GameCube API's, Visual Source Safe, CVS, 3D Studio Max, Maya, Visual Studio, Windows NT, Red Hat Linux, Bugzilla, Eclipse

Lead Software Engineer, Aeon Electronic Entertainment 9/1998 - 5/2000

• Directing the activities of programmers, coding all of the 3D aspects of the submarine simulation Silent Hunter II. Technical liaison to real-time 3D artists.

• Created numerous additional capabilities for loader for Multigen OpenFlight files.

• Used the scene graph paradigm extensively.

- C++, Direct X, OpenGL, 3DFX Glide, Gamebryo scene graph engine, VisKit scene graph engine, Multigen Creator, 3D Studio Max, Visual Studio, Visual Source Safe, Windows 98

Director of Software Development, ASPI 8/1997 - 8/1998

• Coordinated software development team of five programmers; created a software library for a proprietary 3D card set in OpenGL developed in house using custom ASICs and a hardware based voxel technique for Windows and Solaris Unix called the Feature Manager.

• Integrated Mesa into driver for Solaris client. Coordinated software process and Objective C driver interface with Rockwell Collins to begin integration of card set on commercial airlines by the year 2000.

• Created name for card set to increase market awareness, "The True Terrain 3D".

- C++, OpenGL, Mesa, Windows NT, Solaris Unix, Visual Source Safe, Microsoft Project.

Game Programmer/Developer, Legend Entertainment/Atari 6/1995 - 7/1997

- Programmer on 2 games involving programming, design.
- Programmer on a project involving the design of a game development system, “The Wall” using Direct X.
- Technical liaison to artists, giving them directions to generate final game art.
- Games developed for and credited on include: Blackstone Chronicles, Callahan’s Crosstime Saloon and Star Control 3.

- C & C++, Watcom & Microsoft Compilers for DOS and Windows 95, RCS, Debabelizer, Photoshop, Autodesk Animator, Smacker

Alexander Graham Bell Association for The Deaf - 8/1994 - 5/1995

- IT Coordinator for Volta Voice / Member Database Programming

- Turbo Pascal 8.0 for DOS, Dbase IV, Lotus 1-2-3, Word Perfect

White Obsidian Software - 8/1992 - 7/1994

- Software Developer

- Turbo Pascal, Dbase IV, Lotus 1-2-3, Word Perfect

EDUCATION

George Mason University, Fairfax VA

9/1988 - 9/1990

Undergraduate computer science.