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OBJECTIVE

A programmer / developer position as part of a talented team with opportunities to increase my technical skills.

SUMMARY

Creative Information Technology Professional with proven track record of developing and implementing technical solutions with strong analytical and problem solving skills. Results-oriented developer with a deep and diverse technical background.

Languages

Perl, MySQL, PostgreSQL, DB2, Oracle, HTML/CSS, PHP, AutoHotKey, Web CGI, REXX, Python, Javascript, C, FORTRAN, Visual Basic, PL/I, CATIA GII/TUA, JCL, CLIST, Unix Shell

Software & Applications

Photoshop, 3ds Max, Mental Ray, VRay, Flash, Wordpress, Sketchup, Dreamweaver, PTC Division, Lightscape, Sony Vegas Video, Polytrans, Viewpoint, QTVR, Samba, ActiveWorlds, Multigen Creator, Microsoft Access, Microsoft Visual C++, Apache Web Server, VisConcept, VisMockup

Operating Systems

Windows, UNIX (Redhat Linux, OpenSUSE Linux, Sun Solaris, SGI IRIX), MAC OSX, LAMP & WAMP servers, IBM mainframe TSO/ISPF

General

Unix Administration, Web Development, 3D modeling, Render Farm, Computer Aided Virtual Environment (CAVE), ERA/ERD Database Data Modeling, Virtual Reality Real-time Graphics (stereoscopic active/passive displays with motion tracking and interactive programming), CAD modeling / translations for web and real-time graphics

Refer to my online portfolio for examples of my 3D graphics work:

<http://panofish.net/portfolio>

PROFESSIONAL EXPERIENCE

EDS - Electronic Data Systems, Troy, MI

1988-2009

PROGRAMMER / SENIOR VIRTUAL REALITY SPECIALIST

RECENT PROJECT SUMMARY

Photofactory Calendar Website**Oct 2009 – Dec 2009**

- Created mass photo upload utility
- Designed and implemented MySQL database for managing photo calendar
- Constructed Perl CGI to control web site interactions and page display utilizing web page templates
- Utilized Javascript and CSS to insure consistent interaction and appearance of web pages.
- Administered SQL database using unix commandline utilites, phpMyAdmin and MySQL administration GUI.

Environment: WAMP development server & LAMP production server, CSS, Javascript, phpMyAdmin**iPhone Website****Aug 2009 – Sept 2009**

- Created photo website with multiple upload mechanisms
- Designed and implemented MySQL database for managing photos
- Constructed Perl CGI to control web site interactions and page display utilizing web page templates
- Utilized Javascript and CSS to insure consistent interaction and appearance of web pages.
- Administered SQL database using unix commandline utilites, phpMyAdmin and MySQL administration GUI.

Environment: WAMP development server & LAMP production server, CSS, Javascript, phpMyAdmin**Photofactory Website****Oct 2008 – Dec 2008**

- Created mass photo upload utility
- Designed and implemented MySQL database for managing photo library
- Constructed Perl CGI to control web site interactions and page display utilizing web page templates
- Utilized Javascript and CSS to insure consistent interaction and appearance of web pages.
- Administered SQL database using unix commandline utilites, phpMyAdmin and MySQL administration GUI.

Environment: LAMP server (Linux, Apache, MySQL, Perl), CSS, Javascript, phpMyAdmin**Millenium Website****Nov 2008 – Nov 2008**

- Fixed major programming bugs in pre-existing PHP coded web site for internet product sales.
- Provided expert analysis of pre-existing non-normalized database design.
- Created site backup and offsite development and test WAMP server.
- Analyzed, planned and designed site modifications to correct problems with existing design.

Environment: PHP, Phpmyadmin, LAMP server, WAMP development server, Dreamweaver.**G Corp Animation****Oct 2008 – Nov 2008**

- Created a 3D video animation to showcase a Lean manufacturing process for the tool and die industry.
- Translated existing sketchup model data into 3ds Max.
- Created animation keyframes.
- Configured render farm to expedite rendering of video frames.
- Assembled and frames and edited simple video presentation with voiceover.

Environment: 3ds Max, Sketchup, Video Editing (Sony Vegas), Photoshop.**FTP Automation****Sept 2008 – Nov 2008**

Created a multi-platform Perl file transfer utility to exchange files between external and internal servers

- Read, parse and validate input control file syntax
- The utility supported multiple protocols including standard FTP (with or without proxy),
- The utility also supported SFTP (using SSH), and local file copy/move using existing mount points.

Environment: Perl, FTP Protocol, UNIX and Windows.

EDS Virtual Reality Center – Search Engine**June 2008 – Aug 2008**

Designed and constructed a web search engine from the ground up, significantly improving team efficiency.

- The search engine included a large image library and 3D model database.
- The search engine included a Perl cron job that ran nightly or upon request to index all relevant files on the server, including html, pdf, txt, doc, c, perl, images and models.
- The site index was updated on a PostgreSQL database that I had designed and constructed.
- Utilized Javascript to manage CGI interactions
- Search engine CGI mimicking a paged-result-list like google and was also written in Perl.

Environment: Linux, Perl, PostgreSQL, Dreamweaver, Windows.

EDS Global Learning and Development**July 2006 – May 2008**

Graphic Artist Lead responsible for website graphics to enhance and support training material

- Creation of a wide variety of 2D graphics using Photoshop
- Creation of Flash animations/interactions using Adobe Flash
- Creation of 3D animations and 3D stills using 3ds Max rendering as well as screen capture technology

Environment: Windows, Adobe Flash, Adobe Photoshop, 3ds Max, Mental Ray, V-Ray, Sony Vegas, Camtasia

Active Worlds Project**Jan 2008 – June 2008**

Creation of a robust online virtual worlds demo in pursuit of a large corporate contract.

- Wrote a 3d studio max maxscript program to translate new and existing 3d geometry into Active Worlds. Supporting full texture and alpha textures.
- Model 3d architecture, texture, bake lighting solutions and translate into new demo environments for Active Worlds.
- Create animations, interactions and teleports in Active Worlds
- Create simulated video and simulated powerpoint slideshow in the virtual world.
- Configure and support Active Worlds Server

Environment: Windows, Linux, Adobe Photoshop, 3ds Max, Maxscript, Active Worlds

Sabre Airline Reservation July 2007 – Sept 2007

Created an automated cross-platform audit script saving months of effort,.

- Eliminated errors of the manual audit process
- Worked closely with system administrator to integrate within existing processes
- Saved countless man-hours and got the audit team back on schedule
- Helped meet customer contract obligations and prevented expensive penalty fees.

Environment: UNIX, Perl

Veterans Healthcare Analytics Web Database**Feb 2007 – Aug 2007**

Designed and constructed a web server prototype application for a large medical database enabling physicians to analyze medical records and correlate trends with regard to patients, their treatment and prescriptions. Improving patient care, reducing healthcare costs and saving lives.

- Created a simplified interface for SQL query of the medical database by non-technical data analysts / physicians. Used dreamweaver and photoshop to design layout.
- Based on web form selections the Perl CGI would reconstruct the SQL database call which would comply with standards.
- The SQL form supported complex table joins, unions, group by, order by, like, as, case definitions, avg, min, max, std deviation, alias, and where clauses among other SQL syntax.
- Utilizing Javascript and CSS

Environment: Sun UNIX, PostgreSQL, Dreamweaver, Windows, Adobe Photoshop, Javascript, CSS

Shanghai Government Vocational Training**Feb 2006 – Jan 2007**

Provide technical support for the successful installation of a Virtual Reality Center in Shanghai China, including hardware and software configuration.

- Created a full 3D computer model of the vocational facility (8 exterior buildings) and four detailed floors of the new manufacturing building.
- Enhanced existing training and presentation capabilities with powerwall demo of 3D model
- Configured and tested high-end stereoscopic powerwall technology.
- Created an alternate VisConcept 3D demo using the same 3D data
- Storyboarded and created VIP video presentation using Chinese voice-over.

Environment: UNIX IRIX, PTC Division, VisConcept, Windows, 3ds Max, Photoshop, PanoTools, Digital Photography

EDS Virtual Reality Center**1997 – Dec 2008**

Responsible for creation of a many Virtual Reality presentations using high end 3D hardware and software. Utilizing many formats including, stereoscopic displays with multiple projectors, rendered video and stills, real-time 3D computer graphics with pinch glove, mouse, and space grip interactions and a myriad of applications. Also responsible for system administration of ALL hardware and software. The following are some highlights during my 12 years with the Virtual Reality Center.

- Responsible for setup and configure VR Center LAMP servers.
- Migrated unix services and files from SGI IRIX to Sun Solaris and Linux machines
- Capture and manage existing SGI IRIX demo videos
- Created numerous Perl scripts to automate repetitive tasks for the team. One such script was used to create an organized thumbnail view of stock photos for training course materials
- Creation of a Virtual Dealership computer model and rendering for presentation (Global Virtual Motors and Tishomingo Park)
- Created a full series of graphic materials for Lean Six Sigma Course
- Creation of a EDS Virtual Reality marketing video.
- Responsible for creation of backup procedure on Unix.
- Responsible for maintaining and keeping track of team software and licenses
- Render and lighting lead for internal EDS ITIL marketing video presentation
- Responsible for creation and maintenance of EDS Virtual Reality Demos web site.
- Creation and configure of Smartscene retail layout demo on linux machine for Byron Nelson Golf Classic
- Creation of 3D model with baked lighting solution for 7-Eleven demo at the National Retail Federation in New York
- Created scripts in Perl and maxscript to automate extraction of product information and images from Unilever product database to facilitate creation of 3D product models for visualization of retail shelf layout.
- Responsible for creation and maintenance VR Center's render farm using 8+ windows machines, supporting V-Ray, Mental Ray, 3ds Max. The farm supported both frame rendering with Backburner and distributed bucket rendering.
- Creation of translation tool sets to aid in the conversion of 3d data from 3ds Max to FLT format, Performer Binary, and JT format.
- Created Unilever video for CVS concept presentation
- Calibration of digital camera lenses for the purpose of "rectifying" images used in 3D computer models and textures.
- Bimbo Bakeries digital photography capture for 3D presentation materials
- Setup and configure of PC and IRIX hardware for Powerwall and CAVE stereoscopic presentations
- Creation of Target shelf layout stills.
- Created Mazda CAVE demo of RX8 for VIP meeting in Tokyo using VisConcept package.
- Nissan Powerwall demo
- Configured VR Center Samba installation and Postgresql on IRIX workstations.
- Created and presented Perl Class for team.
- Created multiple military demos in support of TACOM and CECOM to aid in their development of military facilities and military vehicles

- CECOM web 3d ASIP radio training using KAON web 3d.
- Analysis of available web 3d formats, including EON, Cult3d, ViewPoint, Web JT and others.
- Created plugin utilities in C for PTC Division to aid animation and presentation in dvmockup on SGI IRIX (e.g. togasm)
- Created a 360 panoramic snapshot utility in C for realtime 3D application in dvmockup on SGI IRIX using the division API
- Created a stereoscopic 3d marketing presentation for Delphi at the 2002 Sensors Expo in California
- Smartscene translation automation
- Created several OpenFlight utilities to modify hierarchy and 3d model attributes, written in C using the OpenFlight api from MultiGen Creator
- Extensive 3D data translations from multiple engineering modeling formats into polygonal format for realtime 3D viewing and animation. Using products like Polytrans and Deep Exploration.
- ...

Environment: SGI IRIX, PTC Division, VisConcept, Windows, 3ds Max, Photoshop, PanoTools, Digital Photography, CAVE, Powerwall, Barco Projectors, Multigen Creator, Redhat Linux, IR blaster with shutter glasses, Pinch gloves, space grips.

EDS / Prosolvia Virtual Reality Institute (20 weeks)

1997

I was chosen among several applicants as the representative from the EDS / Saturn account to attend the Virtual Reality training course which was a joint venture between EDS and Prosolvia.

- Trained on high end 3D graphics systems and applications like EON and Vega, targeting the automotive and architectural industries.

Environment: Multigen Creator, Vega, EON, IRIX SGI, SGI Onyx, SGI Indy, SGI Octane, SGI O2,

EDS Saturn

1988 – 1997

Responsible for IBM mainframe software development under Product Engineering at Saturn of GM.

- CATIA GII / IUA software development using FORTRAN
- DB2 database table design and programming using ERA (Extended Relational Analysis) database design and normalization
- Participated in all System Development Life Cycle (SDLC) phases in the creation of Saturn's CDIA application for tracking part development. Information Planning, Design, Analysis, Business Design, Construction, Testing, Implementation and Production support
- Created many REXX and CLIST scripts to automate team development and increase productivity (e.g. PRNT)
- Created and maintained numerous batch jobs for regular product engineering updates as well as special 1 time fixes requested by customer.

Environment: IBM Mainframe TSO / ISPF, JCL, REXX, CLIST, PL/I, Visual Basic, FileAid, Oncall support

EDUCATION

Bachelor of Science in Electronic Engineering

DeVry institute of Technology, Irving, TX

PROFESSIONAL DEVELOPMENT

20 week intensive training program

EDS Systems Engineer Development Program, Southfield, MI

10 week 3D applications development program

Virtual Reality Institute, Troy, MI