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Joshua Ostrom

Objective A challenging position in software development where problem solving, interpersonal, and programming skills are essential.

Key talents and abilities Excellent problem solving skills, ability to learn new languages and API's quickly, strong work ethic, great interpersonal skills, good analytical skills.

Programming Background

- C++, Java, AS3, Adobe Flex, VB, PHP, MySQL, JetSQL, Avenue, Galil DMC Motion
- Some experience in C, C#, .NET, Assembly language, JavaScript, JQuery, Coldfusion
- Strong background in C++ (6 years) and AS3 (3 years). Primarily object oriented code.
- Background developing applications for both Windows and Linux platforms
- Experience in developing Windows applications (6 years).
- Experienced software consultant (5 years).
- Strong interests in design patterns, architecture and mobile computing.

Employment 2005 - 2010 Digital Luminosity, Inc Mishawaka, IN
Software Analyst, Architect and Engineer

- Software consultant. Projects include rich internet applications, mobile, and Windows (C++) desktop applications for clients in a variety of industries.

2007 - 2010 School City of Mishawaka - Mishawaka, IN
Software Engineer

- Sole software engineer.
- Responsible for web applications (Flex), enterprise applications (Java) and SOA integrations (SIF via Java), data warehouse design and implementation.
- Software used: Eclipse Java, Adobe Flex 3.0, MySQL workbench.

2005 – 2007 Custom Machine Manufacturing - South Bend, IN

Software Engineer / Controls System Engineering Manager

- Lead software engineer, responsibilities also include managing a small IT department.
- Designed and developed applications for the following platforms: WindowsXP, WindowsXP Embedded, and Linux.
- Software used: Borland C++ Builder, Microsoft Visual Studio .NET 2005, Microsoft Visual Basic 6, Adobe Flex 2.0, AutoCAD. OpenGL API used throughout applications for both 2D and 3D renderings.
- All applications centered on motion control. CMM engineers and fabricates various [automated] machines.
- Responsibilities also included programming microcontrollers.

2004 - 2005 Indiana University South Bend South Bend, IN

System Analyst / Software Developer Internship

- Hired in May of 2004 to implement an electronic evaluation system for the University. Part time position (about 20 hours / week).
- Project features include a MySQL database for the backend and PHP for the front end.

2000 – 2005 Williams Aerial & Mapping, Inc. - South Bend, IN

Software Developer / Photogrammetrist

- Responsibilities included software development / software engineering, digital orthophoto production, website design and maintenance, general IT responsibilities.
- Operating systems Windows 98, Windows 2000, Windows NT.
- Software used: Borland C++ builder, Microsoft Visual Studio .NET 2003, ArcGIS, AutoCAD Map5, AutoCAD Overlay, Adobe Photoshop, Autometric Softplotter, DB Designer 4.

Additional work history available upon request.

Recent Programming Projects

Dashboards



Data warehouse with Dashboard front-end. Online RIA for engaging data presentation. <https://dashboards.mishawaka.k12.in.us/>

Implementation

AS3, Flex, Java, PHP

Development Environment

Eclipse

Stock Market Mentor



RIA for real time stock market trade sharing, and knowledge transfer.

Implementation

AS3, Flex, PHP, Coldfusion

Development Environment

Flex Builder

FreeBaseMap



This solution provides an interface to teraservers (<http://teraserver-usa.com>) database of aerial photography and topographic maps. Features include reading of GIS shape files, AutoCAD DXF files, spatial queries and on-the-fly coordinate projection.

Implementation

C# [.NET]

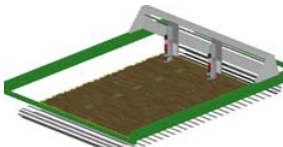
Development Environment

Visual Studio

Webservices

TerraServer
Landmark Service
NED Elevation Service

Scwfeed Machine



Application interfaced to a automated robotic machinery. Multi-threaded solution that provided the end-user with a 3D work-environment. Also included on-line reporting to view progress of machine / operator.

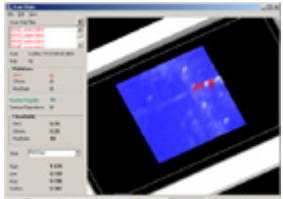
Languages Utilized

VB6, ActionScript, PHP, Galil
DMC (Motion)

APIs

OpenGL

ScanStatsView©



This application provides the user with a real-time [interactive] 3D view of scanning statistics for photogrammetric scans. Scanning statistics are summarized and displayed relative to the scanning backplane.

Language

C++

Development Environment

Borland C++ Builder

APIs

OpenGL

Education

2002 - 2005

Indiana University South Bend South Bend, IN

A.S. Computer Science

- G.P.A of 3.75 (A-).

Programming Courses:

- **C101 Computer Programming I** Fundamental programming class – Tested out.
- **C201 Computer Programming II** Fundamental concepts of computer science, including top-down design, data structures, structured control flow, modular programming, recursion, and standard algorithms.
- **C243 Introduction to Data Structures** Abstract data types and their implementations using various data structures and algorithms; elementary algorithm analysis; space/time trade-offs; sorting and searching; finite graph algorithms; introduction to object-oriented design and programming; software engineering principles.
- **C335 Computer Structures** Computer architecture and machine language; internal data representation; assembly systems; macros; program segmentation and linking; I/O devices; serial communication. Projects to illustrate basic machine structure and programming techniques
- **C308 System Analysis and Design** Software development life cycle; structured top-down and bottom-up design; data flow diagramming; entity relationship modeling; study of computer aided software engineering; I/O design and validation; file and database design; design of user interfaces; comparison of structured vs. object oriented design.
- **C442 - Database Systems** The fundamental concepts, theory, and practices in the design and implementation of database management systems: data independence; data modeling; entity relationship modeling; functional dependencies; normalization; relational, hierarchical, network, and object oriented data models; relational algebra; relational calculus; data definition and manipulation languages; recovery; concurrency; security; integrity of data.
- Operating systems used: Red Hat Linux, Windows XP, 2000.

Awards received

Finalist at ISEF 99 (International Science and Engineering Fair). Best in: physics, aeronautics, aerospace engineering, math/computers. Designed new type of rotating momentum transfer tether (propellant-less propulsion for satellites / general payload delivery). Generating computer models was a large part of making project successful.