WILLIAM CHANG   Portfolio http://williamchang.org

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Objective

A highly skilled full-stack software engineer with expertise in developing web services and applications. Background includes leading teams, automating IT infrastructure, applying test-driven development, and architecting enterprise solutions. Demonstrated ability to acquire new skills rapidly and solve problems under pressure.

Qualifications

<u>Web Development</u>
• Certified Sitecore Developer
• 14+ years of HTML, CSS, DOM, XHR
• 11+ years of JavaScript (Vanilla JS, jQuery)
• 10+ years of ASP.NET Web Forms & MVC
• 6+ years of Web Services (SOAP, REST)
• 6+ years of Microsoft SQL
• 6+ years of SQL, Stored Procedures, LINQ
• 9+ years of C#
• 4+ years of Visual Basic (VB)
• 3+ years of PHP and MySQL
• 2+ years of Java EE (Servlet, JSP, JDBC)
• 3+ years of DevOps, PowerShell, MSBuild

<u>Desktop and Mobile Development</u>
• 3+ years of C and C++
• 1+ years of Objective-C, OpenGL ES (iPhone)
• 3+ years of Java (Console, Swing GUI, Android)

<u>Desired Qualities</u>
• Worked on 18+ web apps and web service projects
• Worked on 4+ desktop projects
• Worked on 2+ mobile projects
• 4+ years of leading teams and managing projects
• 8+ years of problem solving, troubleshooting
• 5+ years of operating distributed systems as DevOps
• 5+ years of operating production systems as DevOps

Experiences

Please visit portfolio for pictures, videos, and source codes:
http://williamchang.org

SeaWorld Parks & Entertainment   Orlando, FL   2012-Present
Software Development Engineer

• Content Web Service, SEA API Web Service **(ASP.NET Web API C#, CMS Sitecore)**
    • For consumption by iOS and Android apps, developed a custom Web API to retrieve and manipulate content from Sitecore. Added new web service methods in SEA API to manage tickets and product inventory reservations.
• Estore App, EZPay App, EZTicket App, FreedomPay Service **(ASP.NET C#, ASMX, ADO.NET)**
    • Developed features for ecommerce, product catalog, inventory management, shopping cart, payment services, order processing, and PDF ticket generator. Fixed many security vulnerabilities reported by WhiteHat Security vendor. Fixed many sporadic live production bugs saving millions of dollars.
• Park Sites **(ASP.NET MVC C#, MS SQL, HTML5, CMS Sitecore, JavaScript)**
    • Architected 12 websites in Sitecore for the following brands: SeaWorld, Busch Gardens, Aquatica, Discovery Cove, Water Country USA, Sesame Place, Adventure Island.
    • Created a migration tool to move and transform content from previous CMS.
    • Created a redirect manager and redirect processors for Sitecore HTTP request pipeline.
• Reseller Database, Ecommerce Database **(SQL, Stored Procedures, MS SQL Server)**
    • Optimized stored procedures by creating indexes and removing unnecessary joins and unions. Therefore, increasing performance up to 50%. Created queries, stored procedures, tables, and views for new business requirements.
• DevOps Tools and Automation **(MSBuild, PowerShell, Web Deploy, TFS Build Server)**
    • Scripted operations to automate integration and deployment to targeted environments (eg dev, qa, stage, prod). Used TFS Build Server to build the source files, MSBuild to transform the config files and merge multiple web app projects into a single Sitecore solution, and Web Deploy to zip package all the release files. Scripted with Powershell to automate tasks for infrastructure and developers, like converting databases from Dell Quest LiteSpeed to MS SQL native format and then automatically attach to the database server to be ready for use.
• Integrate Solr, Coveo, Lucene, Rackspace Cloud Files **(ASP.NET MVC C#, CMS Sitecore)**
    • Built site search infrastructure, configured indexer, and created search-driven pages for website visitors.
    • Developed a reusable image control using the CDN with fallback to on-premise media servers. Created processors to synchronize media files for Sitecore publishing pipeline and a storage adapter/wrapper to interface with Rackspace OpenStack SDK.
• Park Blogs **(PHP, MySQL, HTML5, CMS Drupal, JavaScript)**
    • Fixed bugs and security vulnerabilities in PHP. Migrated environment from IaaS Amazon EC2 Linux to on-premise Windows Server.

- QR Code Redirector **(ASP.NET MVC C#, MS SQL, Stored Procedures, JavaScript)**
  - Developed a web application for advertisement to create a custom short URL, manage the links to redirect, and generate a QR code.

MindComet   Orlando, FL   2010-2012
Software Developer
- Latin America SeaWorld Parks, Weather Service **(ASP.NET 3.5 C#, MS SQL, CMS Sitefinity, jQuery)**
  - Developed a weather service desktop/console application to be run in Microsoft Windows. The weather application routinely synchronize the data between the internal database and the cloud (Internet service). Front-end engineered the website for SeaWorld Parks for Hispanic. Developed or extended many modules (aka controls) for Sitefinity (CMS) and to be manage by content authors.
- Howl-O-Scream at Busch Gardens Tampa 2010 **(ASP.NET 3.5 C#, CMS Sitecore, XML Web Service)**
  - Developed an XML web service to interface and interact with the front-end (run by Adobe Flash). Build and deployed using Sitecore (CMS) for content authors to manage the front-end.
- HOS Contest Management System **(ASP.NET 3.5 C#, MS SQL, CMS Sitecore, jQuery, HTML 5)**
  - Engineered a contest management system for Howl-O-Scream, a yearly event run by Busch Gardens and SeaWorld. Users can submit YouTube videos, Flickr photos, and Twitter messages inside the web application. The system extends Sitecore for content authors to create and manage multiple contests simultaneously in each amusement park. Designed front-end using HTML5.
- SeaWorld Parks **(ASP.NET 3.5 C#, MS SQL, CMS Sitecore, jQuery, HTML 5)**
  - Extended Sitecore's media library to support CDN. Solely architected the data access layer using LINQ to SQL and Stored Procedures. Developed administrator interface to synchronize with phone service (Voxify) and manage park hours, showtimes, and events. Created social services with Twitter, RSS Feeds, and Facebook Like. Designed front-end using HTML5.
- Planet Hollywood Earl of Sandwich **(ASP.NET 4.0 C#, Razor, CMS Umbraco, jQuery)**
  - A $30,000 web project serving up to 20,000 visitors per month with 16 locations. Solely developed geolocation via IP address or GPS using Haversine formula and JavaScript. Modified HTML to use responsive web design (CSS3 Media Queries) for desktop and mobile screens. Information architected using Umbraco CMS for data storage, management, and multi-stage deployment.
- Planet Hollywood Buca di Beppo **(ASP.NET 4.0 C#, Razor, CMS Umbraco, jQuery)**
  - A $80,000 web project serving up to 100,000 visitors per month with 86 locations and 146 menu items. Solely developed geolocation via searching with Yahoo PlaceFinder API, IP address or GPS using Haversine formula and JavaScript. Created an extensive import script to migrate all locations and menus from an archaic database. Information architected using Umbraco CMS for data storage, management, and multi-stage deployment (e.g. dev, qa, prod environments).

Elite Technical Services, Inc   Orlando, FL   2008-2010
Senior Application Developer
- LEGACY: Technet, Intranet Web Application **(Classic ASP VB, MS SQL, jQuery)**
  - Project takeover. Solely migrated web application from an overloaded production server that has both IIS and MS SQL running to a web server and a database server, separately running. Made feature enhancements, design updates, and fixed endless legacy bugs.
- LEGACY: Vendorsoft 2 **(ASP.NET 3.5 VB, MS SQL, jQuery)**
  - Project takeover, was underdeveloped and unmarketable. Stabilized application by improving business logic, improving database schema, improving design, and fixing many major bugs.
- Two Promotion Websites **(Classic ASP VB, jQuery)**
  - Created graphics using Adobe Photoshop and template design using XHTML, CSS, and JavaScript. Coordinate with content author to setup layout and insert information for every web page. Finished and delivered in less than two months.
- Vendorsoft 3 **(ASP.NET 3.5 C# MVC, ORM NHibernate, MS SQL, NUnit, jQuery)**
  - Developed a vendor management system. Developed database SQL schema using ORM NHibernate with LINQ and designed using repository pattern (Domain Driven Design, DDD). Created testing suite using NUnit (Unit Testing, TDD).
- SubmittalCheck **(ASP.NET 3.5 C# MVC, ORM NHibernate, MS SQL, NUnit, jQuery)**
  - Architected an authorization & verification system. Developed database SQL schema using ORM NHibernate with LINQ and designed using repository pattern (Domain Driven Design, DDD). Created testing suite using NUnit (Unit Testing, TDD).

Engineering Technology   Orlando, FL   2003-2008
University of Central Florida
Senior Software Engineer
• SCINET - Seminole County Government Integrated Networks **(ASP.NET 1.1 VB, MS SQL, YUI, Ext JS)**
    Role: Software Engineer
    • Developed tracker system: forum subsystem, ticket subsystem, search subsystem. Architect user interface for usability (intuitively) and accessibility. Used significant YUI and Ext JS (JavaScript) for richer user experience. Used TinyMCE rich text editor (JavaScript). Created graphics and template design. Created Adobe Flash for template header to do animation and navigation.
• FINDER - Law Enforcement **(ASP.NET 2.0 C#, MS SQL)**
    Role: Software Engineer
• UCF OEAS Assessment and Program Review **(ASP.NET 2.0 VB, MS SQL, YUI)**
    Role: Software Engineer
    • Developed documentation (aka help) system and created database SQL schema: document organizer subsystem, search subsystem using AJAX with ASP.NET Script Service. Architect user interface for usability (intuitively) and accessibility.
• UCF CECS Diversity **(ASP.NET 2.0 VB, MS SQL, YUI)**
    Role: Software Engineer
    • Solely architected a three-tier web application. Developed database SQL schema. Developed user management system. Developed competition (aka tournament) management system: event subsystem, team subsystem, volunteer subsystem, judge subsystem, ranking (aka ladder, scoring) subsystem. Developed survey management system and tutoring management system. Used significant YUI (JavaScript) for richer user experience and AJAX with ASP.NET Script Service. Created graphics and template design.
• US-YSTR - Y Chromosome Haplotypes Search Engine **(ASP.NET 2.0 C#, MS SQL, YUI)**
    Role: Lead User Interface Engineer
• Brevard County Government Solid Waste **(ASP.NET 2.0 VB, MS SQL, jQuery)**
    Role: Lead User Interface Engineer
• Knightverse - Charlotte County Government Comprehensive Plan **(ASP.NET 3.5 VB, MS SQL, jQuery)**
    Role: Software Engineer
• UCF CECS Engineering Technology **(ASP.NET 3.5 C#, MS SQL, jQuery)**
    Role: Lead Software Engineer
    • Solely architected a three-tier web application. Used significant jQuery (JavaScript) for richer user experience and AJAX with ASP.NET Script Service. Developed database SQL schema. Developed user management system and content management system. Used TinyMCE rich text editor (JavaScript). Developed file management system with AJAX-like upload and filtering subsystem.
• Performance VU **(ASP.NET 3.5 C#, MS SQL, jQuery)**
    Role: Software Engineer

Consultant, Freelance Engineer   Orlando, FL   2005-2008
• Fabricam Engineers **(Static XHTML, JavaScript Prototype & Scriptaculous)**
    • Created graphics and template design. Used significant Prototype and Scriptaculous (JavaScript) for richer user experience.
• Foodosaurus sponsored by Wackadoo's Grub & Brew **(ASP.NET 3.5 C#, MS SQL, jQuery)**
    • Solely architect three-tier web application. Used significant jQuery (JavaScript) for richer user experience. Developed restaurant menu management system, a restaurant menu editor and menu designer, using AJAX with ASP.NET Script Service.

Creative Crew (Programming Club)   Orlando, FL   2005-2010
University of Central Florida
Founder, Hobbyist
Desktop Applications
• Game Engine, Code Name: Discover **(C++, XML)**
    • Used OGRE engine for graphics rendering to OpenGL and DirectX. Developed a configurable keyboard and mouse interface. Developed narration module for storytelling. Developed multiple cameras and dynamic navigation: side scrolling. Developed character controlling and animation. Ability to import and parse XML to build static world. Used Bullet 3D physics for object mass, friction, collision, dynamics (aka rigid body). Developed a 3D mouse picker.

Mobile Applications
- JavaME aka J2ME **(Java)**
    - Developed a simple pong game against a computer.
- Google Android **(Java, XML)**
    - Developed a console, to accept text commands. Developed a 2D Side-Scrolling using a tiling technique by partitioning into bitmaps as building blocks for the world. Dictate properties of each tile and location in the world.
- Apple iPhone **(Objective-C 2.0)**
    - Developed pong game by using Box2D physics for collision and bouncing. Developed multi-touch pinching for zooming.

Web Applications
- Domain Generator **(PHP, MySQL, jQuery)**
    - Used PHP 5 (Object-Oriented) and MySQL technologies. Used jQuery (JavaScript) for presentation and business logic layer. Used AJAX to request and respond by JSON RPC.

Skills

MS-DOS QBasic, Visual Basic (VB), C, C++, Objective-C, C#, Java, HTML, CSS, JavaScript, PHP, ASP.NET, SQL (standard SQL-92, Transact-SQL), LINQ, SAP, OpenGL ES

Development Tools	**Web Technologies and Tools**
• Microsoft Visual Studio	• Microsoft IIS
• Microsoft Team Foundation Server (TFS)	• Microsoft SQL Server Management Studio and SQL Server Profiler
• Apple Xcode (for Apple iPhone)	• Microsoft Entity Framework and NHibernate (ORM)
• Eclipse (for Google Android, Java EE)	• ASP.NET MVC, Web API, Web Forms, ASMX, WCF aka SVC
• SAP NetWeaver Developer Studio	• WebService Studio and Wizdler (Debug SOAP)
• Adobe Photoshop and Illustrator	• Apache HTTP Server, Apache Tomcat
• Autodesk Maya and Blender (3D Modeling)	• MySQL with phpMyAdmin and SQLite with SQLiteStudio
• OGRE (Graphics Rendering Engine)	• Responsive Web Design (RWD), Canvas, WebSocket
• Bullet (3D Physics) and Box2D (2D Physics)	• AJAX aka XHR (JSON or XML for data interchange)
• NUnit, xUnit, MSTest (Unit Testing, TDD)	• Postman (Debug REST)
• Git (for GitHub) and TortoiseSVN (for Subversion)	• Google Chrome DevTools (Debug JavaScript, CSS, DOM, HTTP)

Education

University of Central Florida
Bachelor of Science   Orlando, FL
Information Technology

Activities

Creative Crew (Programming Club)   Orlando, FL   2005-2010
University of Central Florida
Founder, Leader
- Perform leadership duties, presentations, train developers, management.