

# Tyson Swing

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<http://www.tysonswing.info>

Take companies to the next level of innovation. See revenue recognition and lower project costs through software development efficiency and exceeded customer expectations.

## KEY SKILLS

.NET (all languages)  
C/C++  
Java  
Mono/Xamarin  
iOS/Android  
Web Development  
Source Control (All)  
All major IDEs  
MSBuild, Jenkins  
VMWare/Hyper-V  
Networking Tools  
Cloud Deployment Tools  
MS Office Suite

## KEY STRENGTHS

Team Management  
Communication  
Business Analysis  
Large Scale Architecture  
Software Develop Lifecycle  
Product Build Infrastructure  
Continuous Deployment  
Unit/Integration Testing

## CAREER HIGHLIGHTS

**Project Management** – Highly organized at managing time lines, resources, and teams to deliver large projects on or ahead of time. Versed In setting up and establishing software lifecycle practices to ensure efficient throughput with resources.

**Business Analysis** – Able to use competitive market analysis to understand market penetration and viability. Developed business plans with projections, profit and loss statements, and break-even analysis.

**Web Development** – Experience in building multitude of web-based applications using ASP.NET, Java, PHP, Angular, and others. Designed single page and multi-page applications based on business needs and need of application.

**Test Driven Development** – Introduced companies to test driven development, unit and integration testing. Proficient with various unit test frameworks, NUnit, xUnit, MSTes, jUnit. Setup QA departments with TFS Test Manager to manage test cases and test suites.

**Enterprise Build** – Extensive experience in multiple build types from automated environment builds ranging from development to production to complex multi-language compilation to produce packaged or cloud deployment deliverables.

**Software Lifecycle** - Experience setting up, training, and maintaining agile/scrum processes. Setup entire TFS systems and modifying templates to meet business needs. Established ground work for running scrum teams, standups, poker planning, and burn down usage.

## EXPERIENCE

### PRINCIPAL SOFTWARE ARCHITECT [Agilysys, Inc. \(InfoGenesis POS\)](#)

Santa Barbara, CA • 2012-present

- + Created project plans, time estimations, and managed contractors and full-time employees to deliver major projects ahead of schedule. Used scrum techniques, burn downs, and build-show-build techniques to ensure projects met business needs.
- + Evolved a 35-year-old product into modern scalable architecture, designing it to support dynamic scalability in Azure and load balanced design for on-premise customers. Designed product to increase load capacity and scale the product to meet the demands of company's largest customers, such as MGM, Caesars, Royal Caribbean Cruise Lines. Due to this, company realized a 25% revenue increase, \$10 million, over a 2-year period as well as record conversions from industry leading vendors such as Micros.
- + Designed and implemented ASP.NET REST based APIs used internally and externally to expose business configuration, transaction processing, and 3<sup>rd</sup> party integrations. Created SDKs in various languages to aid in code examples of API usage and used Swagger for real time API documentation.
- + Architected an entire client software deployment strategy that took a 35-year-old file share-based install and turned it into a scalable web-based deployment with in-product version management. 6-month project included efficient use of college interns to tackle difficult product refactoring. Used WPF for resizable install workflow to target small tablets to larger POS devices. Used Wix installation to handle pre-requisite components and install primary software. Leveraged content delivery network (CDN) to enable global scale deployment for company's hosted solution, in addition large companies such as Hilton and Compass who are hosted in InfoGenesis cloud use deployment design to enhance their internal large role outs.
- + Redesigned entire installation process using combinations of .NET, Wix, and various build techniques to support automated deployment to Azure to leverage dynamic scaling. Streamlined product upgrade process to increase efficiency and reliability of device upgrade processes.
- + Introduced and implemented test driven development and code metrics using XUnit and Microsoft code coverage tools. Established patterns for unit test and integration tests on new, refactored, and legacy code. Reduced product defects in critical areas of the product which led to reduced support calls. Used unit tests to migrate legacy C code to .NET, refactor the code, and realize 300% performance gains.
- + Drastically improved enterprise product build time from 2 hours to 20 minutes. Creatively interleaved parallel processes to build C/C++, VB6, .NET, ClickOnce, and other complex build components to increase product deployment throughput. Reduced the setup of product version builds from 2 weeks to 5 minutes. Setup load balanced TFS build agent infrastructure which reduced costs and increased throughput.
- + Designed branch and merge strategy to support enterprise level product maintenance life cycles and feature development isolation. Trained and managed build team to handle company's 300% increase in development staff. Eliminated manual feature porting and increased product stability at the same time reducing time to market.
- + Introduced agile/scrum methodology to an otherwise waterfall heavy process. Streamlined TFS lifecycle to simplify management and facilitate better productivity. Established and maintained process guidelines, PCI/PDASS documentation, and other regulatory processes.

### CO-FOUNDER/SOFTWARE ARCHITECT [3Spotz, Inc.](#)

Santa Ynez, CA

- + Performed market and competitive analysis for specific verticals in Point of Sale. Verified that market penetration is viable and outlined the required capital necessary to bring business to profitability.

- + Developed tablet and phone-based application using Xamarin technology, a cross platform language based on .NET standard. Critical line of business code designed to run client side and server side. Used MVVM pattern with WPF UI. Overcame challenging design considerations due hardware specific integrations with peripherals.
- + Created administrative web-based application using ASP.NET MVC, styling with Bootstrap, and various JavaScript frameworks to support dashboard reporting, administrative tools, online shopping, loyalty, and marketing Point of Sale needs.
- + Worked with investor consultant to seek funding. Created pitch decks and investor demos.

**SENIOR SOFTWARE ENGINEER** *Santa Barbara Bank and Trust*  
Santa Barbara, CA ▪ 2010 to 2012

- + Lead engineer for entire Santa Barbara Bank and Trust.
- + Deployed and configured full feature installation of Team Foundation Server reducing costs by \$60k/year. Created project proposal, project planning, and customized project template for company application lifecycle management. Replaced existing desperate systems with TFS's consolidated system for source control, bug, automated build, and project management. Integrated with Eclipse, Visual Studio, Excel, and MS Project. Introduced and developed continuous integration. Created work item custom controls.
- + Architected business application portal using ASP.NET WebForms. Portal consisted of modular design to allow rapid application development to suite business unit needs. Develop unit testing which ran during code check in. Setup continuous deployment environments using TFS builds, web and database deploy to dev/test/stage/prod. Setup auto deploy to dev environment on check-in reducing development cycle and increasing product stability. Security controls setup to isolate deployment to different environments.
- + Oversaw projects including a system wide install of their managed file transfer system, Axway Secure Transport.

**SENIOR SOFTWARE ENGINEER** *MediaTrust*  
Santa Barbara, CA ▪ 2008 - 2010

- + Architected a multi-tier application to support Affiliate Marketing. Front end was based on ASP.NET and ASP.NET MVC framework utilizing jQuery as the client-side JavaScript library. Led the development of domain model design, using NHibernate ORM. Utilized continuous integration and unit testing with TFS.
- + Utilized Microsoft database projects to maintain and deploy database architecture.
- + Work closely with business users to understand and translate use cases into functional design requirements. Typically work in a more Agile work process which has continuous communication between engineering and the business. Document technical specifications and design decisions both in business terminology and coding decisions in order to convey information to QA and other engineers.
- + Aided in the design of a data warehouse to support the core analytics of the business which is conversion rates of online marketing traffic with respect to various dimensions. This utilized Talend ETL tool to build a warehouse on SQL Server. Wrote the reporting infrastructure that took advantage of the data warehouse, and provided API access so that publishers could export such data in various consumable formats.

**SOFTWARE ENGINEER** *InfoGenesis*  
Santa Barbara, CA ▪ 2004 - 2008

- + Worked closely with all aspects of the development and release cycle, including requirements gathering, prototyping, design reviews, design hand offs to QA and global production deployment documentation.

- + Architected a real time transaction processing system from top to bottom utilizing MSMQ, Windows services, .NET Remoting, and SQL Server for an enterprise level POS (Point of Sale) system. Increased transaction throughput by 10-fold, at the same time reducing database consumption by a factor of 6. In order to interact with legacy system written in C, this required interaction of C++.NET.
- + Lead developer in designing a custom scheduling engine that delivered custom reports, export/imports, and various POS time dependent tools.
- + Prototyped a fully functioning POS web-based configuration and reporting interface using ASP.NET MVC pattern and Reporting Services. Took advantage of localization, and client-side JavaScript programming to create an efficient lightweight alternative to their heavy WinForms client.
- + Built server-side management tools which orchestrated various tasks in Sql Server, Reporting Services, IIS and ASP.NET web configuration. Tools were used in the POS system installation program which was deployed internationally.

## OPEN SOURCE PROJECTS

**.NET LOCALIZATION TOOL** (2010) Wrote a tool to aid in localizing .NET and Android applications in an automated fashion.

<http://localizer.codeplex.com/>

**GOOGLE TRANSLATOR** (2010) Prior to Google changing localization API to pay-per-usage, wrote a program that leveraged programmatic localization of any and all resources used in an application. Enabled large scale applications whether in .NET, Android, or iPhone to easily create translated resources.

## LANGUAGES AND TOOLS

**LANGUAGES :** C#, C/C++, Java, Obj-C, VB6, PHP, Python, Html/Xml, CSS, JavaScript, Xaml

**FRAMEWORKS :** .NET, ASP.NET MVC, Xamarin, Nuget, Android, iPhone, jQuery, NHibernate, Entity Framework, MSBuild, NAnt, Wix, InstallShield, ClickOnce, MSTest, NUnit/XUnit, tSQLt, WPF, WCF, Windows WMI, Windows COM, Git, Subversion, TFS, Bootstrap

### SOFTWARE :

**Developer Tools** – Visual Studio (All versions), XCode, IntelliJ, Eclipse, Sublime, Postman, SSMS

**Database** – Microsoft SQL Server and Tools (All versions), MySql, Postgres, MongoDB

**Business Intelligence** – SQL Reporting Services (SSRS), SQL Integration Services (SSIS), Pentaho, Jasper Soft, Crystal Reports

**Applications** – Team Foundation Server, Stash, Jira, Confluence, SharePoint, IIS, Apache, MS Web Deploy, Docker, Ansible, Managed File Transfer Systems (IpSwitch, Axway), Nuget Server, WireShark, Fiddler, VCloud

## EDUCATION

**B.S ELECTRICAL ENGINEERING** from the University of California, Santa Barbara. Specialized in high frequency circuit design (2004)

**A.S MATH & PHYSICS** from Santa Barbara City College, California (2000)

## VOLUNTEER

**WEB DEVELOPER TEACHER** (2020) Created class for computer programming at Santa Ynez Valley Charter middle school and taught the subject to 15 students. Covered introduction into computer processing architecture, programming constructs, and web development.

**COMPUTER ENGINEER TEACHER** (2019) Created class for computer engineering at Santa Ynez Valley Charter middle school and taught the subject to 20 students. Class revolved around [Arduino](#) microcontroller and IDE ran on PCs/Chromebooks. Covered electric circuits, C programming, and microcontroller hardware projects.

**MATH SUPERBOWL TEACHER** (2013-2018) Taught and trained high achieving students between 4-6<sup>th</sup> grade to compete in math Superbowl. Consistently achieved 1<sup>st</sup> place in engineering build competition across 30 schools.

**TEAM MANAGER – SOFTBALL/BASEBALL** (2008-2017) head coach and team manager for youth softball/baseball. Create practice plans, run multi-drill practices, manage assistant coaches, communication with parents and league staff. Majority coached players made All-Stars and went on to be varsity first string players.

**HEAD COACH – MIDDLE SCHOOL & YMCA BASKETBALL** (2014-2019) coach for YMCA and middle school youth basketball.

## HOBBIES

**BIKE RACING** – Raced during college and after. Participate in criterium style racing as well as other forms of racing. Enjoy long distance riding with extreme challenges.

**CAR RACING/REBUILDING** – Enjoy automotive engineering and racing. Rebuilt 1961 VW Type 1 from ground up. Tuned 2003 VW GLI VR6 for track racing.

**BREWING BEER** Enjoying the complexities of brewing beer and consuming the sometimes good and not so good results.

**ENTREPRENEURSHIP** Enjoy market analysis and discovering new ways to improve existing successes or create new success. Enjoy using skills in technology to benefit others.