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# JD Courtoy

*Lead Architect & Coding Samurai*

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## *Summary*

Samurai are servant warriors known for their virtue—which is my mindset approaching software development. I have a passion for solving complicated problems using the simplest possible solution, and seek to work with other like-minded polyglots who utilize the right tools for the job at hand. I seek to delight customers and am a life-long, continuous student of the industry.

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## *Experience*

### LeanKit

Jan 2016 - Present

#### Sr. Software Engineer

- Greased the mobile app's wheels by providing back-end development in NodeJS and DevOps support.
- Broke key NodeJS micro-services out of the existing monolithic .NET application while maintaining application integrity during customer use.
- Architected, built, and evangelised the mobile and web push notifications platform.
- Championed and built the ChatOps-enabled delivery pipeline for both the mobile app and micro-services exploiting feature toggles for continuous deployments with weekly deployments on mobile and daily deployments on the back-end.
- Fostered technical direction and mentoring for Jr. and Sr. developers alike.
- Open-sourced several projects related to RabbitMQ and ChatOps.

Tech Stack: JavaScript (ES6), NodeJS (LTS), React, C#, F#, Golang, Bash (POSIX), .NET, Azure, GitHub, SQL Server, Redis, RabbitMQ, NHibernate, HAProxy, Docker, Rancher, Drone, Octopus Deploy, TeamCity, Bitrise, Hubot / Slapp / Botkit

### NC2 Media

Feb 2015 - Jan 2016

#### Sr. Full Stack Developer

- Architected and built a cutting-edge marketplace platform for video sales built on a micro-services architecture.
- Automated “all the things” dealing with continuous delivery to the Azure cloud as resident DevOps evangelist.
- Supported the team in establishing an agile development culture, and the adoption of new coding standards, peer code reviews, and tooling.
- Drove lean development practices, scalable architectures, and MVP delivery.
- Provided technical direction and mentoring to Jr. and Sr. developers alike.

- Open-sourced a few of our internal tools including a scaffolding engine for our front-end SPA apps, and Be-Be, our friendly chat ops automation bot.

Tech Stack: C#, F#, JavaScript, AngularJS, CucumberJS, SASS, Web API, NodeJS, Gulp, Teamcity, Bitbucket (Git), Octopus Deploy, Azure, DocumentDB, Redis

## Asurion

Apr 2014 - Feb 2015

### Sr. Development Tech Lead

- Architected a new platform built around micro-services to “strangle out” hard to test, defect-prone, and unmanageable code into modular, single purpose units which could be utilized across tenants.
- Instrumental in designing and implementing a trunk-based build and deployment pipeline which facilitated continuous delivery for our department with daily deployments.
- Instrumental in establishing an Agile development culture, and driving success through the adoption of new coding standards, peer code reviews, and tooling.
- Pushed technical excellence by achieving 100% peer-reviewed and tested code, adoption of new languages and tools, and leading the team through a truly successful Scrum process. Our team was viewed internally and externally as the cutting edge of Asurion.
- Led groups of technical and business colleagues through Sharpen-the-Saw meet-ups in order to drive knowledge share across the company.
- Provided technical direction and training to Junior developers across teams, culminating in universal improvement in produced quality across the department.
- Ushered in the company's first OSS initiative by providing a candidate project (Feature Toggles).

Tech Stack: Java, Groovy, Gradle, JavaScript, AngularJS, Cucumber, Compass, Spring 4 + Boot, Jenkins, Stash (Git), Thoughtworks Go

## WPC Services

Oct 2013 - Mar 2014

### Sr. Application Architect

- Architected and developed the entire stack for a legacy HL7 BizTalk dashboard into a modular tiered architecture. (Demo available)
- Performed an audit of the Integration Services department at HCA, assessing the current and desired future state of their architecture.

Tech Stack: C#, Web API 2, ASP.NET MVC 5, LESS for CSS, DurandalJS, KnockoutJS, BreezeJS, EF 5, SQL Server 2012, Lucene, BizTalk 2012, Azure, Visual Studio Online, TFS

## Press Ganey Associates

Nov 2009 - Oct 2013

### Director, Customer Experience

- Supplied technical direction and management to a team of 20 developers across multiple ongoing projects (both existing and new).
- Architected and drove implementation of a service-oriented approach to the Physician Playbook (PPB) application.
- Recruited and hired a team of some of the best data warehousing experts in the SQL Server space to architect and implement a Kimball-style data warehouse expected to grow upwards of 200TB in the next two years. The warehouse was designed to consolidate clinical, financial, patient satisfaction, and quality data into a single analytics engine.
- Coordinated with different internal groups comprised of developers, product owners, and

- Coordinated with different internal groups comprised of developers, product owners, and senior management to architect and deliver the warehouse as well as MDM solutions for patients, physicians, and facilities.
- Designed and implemented a query API that would allow for applications across the enterprise to ask questions of the warehouse in order to consolidate the metric, benchmark, and statistical calculations used by the business.

Tech Stack: C#, Web API, T4 Templates, NServiceBus, Autofac, StructureMap, RavenDB, SQL Server 2012, TeamCity

## Director, Software Architecture

- Architected and built the Quality Performer (QP) front-end website to push front-end logic to the client.
- Architected and re-engineered the QP service and front-end to utilize a CQRS architecture which dramatically improved the performance and feedback of the application by an order of magnitude (5s to 50ms).
- Architected and re-engineered the QP workflow engine to a DSL which supported dual language code-generation which allowed a single file to support both back-end C# and front-end JavaScript implementations simultaneously.
- Architected and engineered the Clinical Performer (CP) large-scale (20TB) data analytics dashboard.
- Supplied technical direction and management to a team of 10 developers across multiple ongoing projects.
- Established a successful Scrum implementation that could gauge team cadence and deliver on that cadence regularly.
- Coached team members on patterns, usage, and acceptable development practices. Coding practices were verified through peer reviews, ReSharper, and FxCop.
- Implemented continuous integration and push-button deployments.

Tech Stack: C#, ASP.NET MVC 4, Web API, Castle Windsor, Ninject, JavaScript, jQuery, KnockoutJS, RaphaelJS, HighCharts, MDX, LESS for CSS, RavenDB, XText, TeamCity

## Data Advantage, LLC

Jan 2008 - Nov 2009 (aquisition)

### Director of Software Architecture

- Extended the Quality Manager (QM) application with automated back-office tools leading to an exponential increase in developer productivity.
- Designed and engineered an automated reporting system which interfaced with government healthcare regulators and met strenuous regulations on quality and timelines.
- Designed and engineered the Hospital Value Index (HVI) which allowed the general public to easily rank hospitals in their area by many criteria, including the ability to geo-spatially navigate through a GIS solution.
- Brought attention to Data Advantage through these applications, eventually resulting in an aquisition by Press Ganey.
- Recruited, trained, coached, and managed a team of five additional developers.

Tech Stack: C#, ASP.NET MVC, Caliburn / Prism, Castle Windsor, NHibernate, SQL Server 2008 R2, SSRS, JavaScript, jQuery, RaphaelJS, HighCharts, ArcGIS, SVN, Cruise Control

## Loch Erin

Feb 2007 - Jan 2008 (acquisition)

### Principal Software Architect

- Architected and engineered the Quality Manager (QM) web-based front-end application designed to meet governmental compliance regulations around quality of care metrics in hospitals.
- Architected and engineered a custom visual flowcharting rules engine for the QM application built upon Microsoft Workflow Foundation (WF). We were one of the first Microsoft shops to deliver a production implementation of WF.
- Designed and engineered the backend database structure and ORM layer for the QM application.
- Guided and trained a team of three developers.

Tech Stack: C#, ASP.NET, HTML/CSS, WCF, WF, SQL Server 2008, NHibernate

## Community Health Systems

Feb 2007 - Jan 2008

### Sr. Web Developer

- Architected and engineered the Quality Resource Manager (QRM) application and built a very simple rules engine developed using a DSL written with Antlr.
- Designed and engineered a physician privileges tracking system that helped hospitals monitor which physicians were performing outside of their privileges.
- Coordinated with other internal departments to deliver ad-hoc reporting solutions as needed.
- Mentored and held lunch & learns for developers.

Tech Stack: C#, ASP.NET, SQL Server, SSRS, Antlr

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## *Projects*

## Mobot

LeanKit Mobile squad's automation chat bot

<https://github.com/LeanKit-Labs/slack-mobots>

## Bucko

LeanKit Tag & Release automation chat bot

<https://github.com/Bunk/ae-bucko-public>

## rabbit-topology

RabbitMQ DSL parser for defining a topology

<https://github.com/Bunk/rabbit-topology>

## amqplib-topology

Asserts a Rabbit MQ topology using the amqp.node library.

<https://github.com/Bunk/amqplib-topology>

## amqplib-mocks

Mocks for the amqp.node library

<https://github.com/Bunk/amqplib-mocks>

## HL7 dashboard

A responsive dashboard for searching & viewing HL7 message throughput built on Web API, DurandalJS, SignalR, and Lucene.

<http://hl7-dashboard.azurewebsites.net/>

## trello

An awesome Windows Phone 8 Trello client leveraging SignalR, Caliburn Micro, and SimpleContainer in C#.

<http://github.com/Bunk/trello>

## flippers

A feature toggles micro-service built on the MEAN stack with planned client support in JavaScript, C#, Java, and Ruby.

<http://github.com/Bunk/flippers>

## resume

This resume hosted as a continuous deployment project written in Markdown and deployed as a simple HTML site.

<http://github.com/Bunk/resume>

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## *Education*

### Bachelor of Science (Computer Science)

Georgia Institute of Technology

2000 -  
2005

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## *Languages*

JavaScript

Ruby

Java / Groovy

Powershell / Bash

C# / F#

Antlr / XText / C / C++

## *Platforms*

Spring 4 / Spring Boot  
NoSQL / Hadoop  
Azure / AWS / Heroku  
RabbitMQ / NServiceBus

ASP.NET / MVC / Web API  
SQL Server / MySQL  
Git / Hg / SVN

NodeJS / Hapi / Seneca  
Docker / Compose / Tutum  
OS X / Linux / Windows

## *Skills*

Scrum / Kanban / Agile  
Test-Driven Development  
Continuous Review

OOA / OOD / AOP / DDD  
Trunk-Based Development  
Team Building

SOA / Micro-Services  
Continuous Delivery  
Polyglot