

Jayson Knight | Résumé

Software Engineer/Solutions Architect
[v] 704.408.2471

Objective:

I am seeking a career in a challenging team oriented atmosphere, and looking to bring innovativeness and creative problem solving abilities as a Software Engineering Lead/Solutions Architect to a fast paced, result driven environment. I have excellent communication skills, and am very dedicated and driven to succeed. I have over fifteen years of experience developing enterprise solutions utilizing all aspects of the Microsoft development technology stack.

Education:

Columbia University in the City of New York

Major: Environmental Science
Minor: Computer Science
Concentration: Sustainable Development

University of North Carolina at Charlotte

Major: Chemistry
Minor: Biology
Concentration: Mathematics

[View my MCP Certifications](#) (Interactive Transcript), Written Listing: See End of this Document

Areas of expertise:

- Programming the .NET Framework (versions 1.0-4.7) with C#/VB.NET/F#/LINQ, Entity Framework utilizing Visual Studio (all versions through 2017)
- OOA/OOD/OOP Methodologies and Extensive Design Pattern Knowledge, SOLID Design Principles
- Building Enterprise/Distributed Web Applications with ASP.NET/JavaScript/Ajax/JSON/MVC/Web API, WCF Services, Multi-Threading, Parallelism (TPL, Async/Await), Distributed Components, XML, SOAP, XSLT, ADO.NET/Entity Framework/.NET Remoting/LINQ, MSMQ, Azure
- Windows Server 2000-2016/IIS 5.0-8.5 Deployment and Production Debugging, Performance Tuning
- SQL Server 7.0-2016 Database Design/Administration and Stored Procedure Development with T-SQL
- Developing Data Movement/Integration/Reporting Solutions with DTS/SSIS, and SSRS
- Microsoft Solutions Framework and Application Architecture
- Enterprise Solution Patterns Using Microsoft .NET Prescription Architecture Guidance
- Implementing Enterprise Collaboration Solutions with Microsoft SharePoint Server
- Full SDLC Implementation with Both Waterfall and Agile/Scrum Methodologies within TFS
- Extensive Debugging/Post Mortems in both Development and Production Scenarios via Visual Studio, and Remote Debugging Tools

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Experience:

10/2017 to Present

Solutions Architect: AvidXchange, Inc.

Reported directly to Kevin Martin, Director of Solutions Architecture

- Served as Solutions Architect on the Architecture Center for Excellence (ACE) team, providing end to end architecture guidance for 15 Fungible product engineering teams, utilizing agile/scrum methodologies.
- Acted as committed chair for Azure Readiness team, thus driving Avid's complete Azure architecture as the organization transitioned from traditional monolithic enterprise architecture, to a micro-services based architecture hosted within Azure. This included deep analysis of existing systems, and rearchitecting to leverage full capabilities of the Azure suite of cloud technologies (end goal: little to no "lift and shift"). In all, over 60 systems were identified and rearchitectured to move into Azure.
- Created and drove process to integrate IT teams who identified and resolved high visibility application problems in proactive architecture prescription guidance. The goal of this initiative was to provide proactive guidance to engineering teams instead of relying mainly on reactive "break/fix" QFE engineering.
- Authored dozens of Azure recipes/blueprints for guidance to engineering teams to assist in leveraging Azure to its fullest potential. An example of this was how to author Azure Function Apps to utilize IoC (Autofac), full unit testing, and integration into Application Insights. The end result was a package developers could install via NuGet, and be up and running by plugging in business logic within just a couple of hours, all plumbing and boilerplate was supplied. The end goal in this initiative was the ease in spinning up microservice frameworks and applications to transition applications to Azure.
- Drove Chaos Engineering initiative to enhance product durability (Similar to Chaos Monkey from Netflix).
- Drove consolidation of all messaging subsystems to RabbitMQ, and authored numerous best practices/recipes for how to integrate and transition existing messaging systems to RabbitMQ, as well as durability and automated reactive recovery from messaging failures. Various messaging systems were part of the portfolio, the end goal was to be at 100% RabbitMQ usage, and transition to a supported offering from Pivotal Systems.
- Team served as overarching subject matter expert on new application design and implementation during the Mastercard integration project. Mastercard recently partnered with Avid to facilitate integrating their virtual credit card platform into a framework to be used by various financial institutions as a product they could sell to their partners and customers. This involved deep integrations with existing product suite, as well as new application architecture to utilize Azure.
- Provided code reviews on an as needed basis to product engineering teams. Also provided mentorship and continuous workshops for new technologies, and best practices to facilitate smoother and more successful code reviews.
- Supported Enterprise Architects on an as-needed basis.

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12/2014 to 10/2017

Software Engineering Lead/Solutions Architect: Intel-GE Care Innovations

Reported directly to Kumar Subramamian, Chief Information and Technology Officer

- Served as Software Engineering Lead on the Core API Product Development team, leading a team of internal and offshore developers in the architecture and development of API platform utilizing .Net WebAPI/MVC as the backend service provider framework. These API's were consumed by a myriad of frontend devices including mobile clients, web applications, and other services via JSON and XML as data transports. SQL Server 2012 is used as the backend data repository, Entity Framework 6.0 is the ORM, and all services hosted in Microsoft Azure.
- Architected and lead initiative to migrate from Mashery to Azure as the service bus, providing complex data mappings and transformations for various formats to facilitate data movement between various 3rd party applications/API's. The ultimate goal of these prototypes was to replace Mashery as the service bus host to simplify the amount of custom code in our transformation and mapping components, as well as fully utilize Azure as a service host/eventing host. Projects included extensive data analytics/machine learning applications, and patient monitoring suites.
- Worked directly with our project management teams and our scrum master to transition from a waterfall-agile hybrid to a pure agile/scrum project development methodology utilizing TFS for SDLC. Served as technical liaison/solutions architect for client facing initiatives.
- Lead all daily standups, bi-weekly sprint planning meetings to ensure project readiness and meeting of deadlines for the Core API Team. Provided guidance and mentorship on an as-needed basis to teammates, offshore teams and other team leads.

1/2014 to 12/2014

Sr. Systems Developer/Architect: Tempur Sealy International

Reported directly to Regina Martin, Global Applications Technical Lead, eCommerce and Retail Integrations

- Served as lead developer/architect on a variety of integrations and web applications, leading a team of developers and DBA's, providing solutions integrating into 3rd party application portfolio, as well as into the core ERP system, provided by Microsoft Dynamics AX 2012 CU7/R3.
- Architected and implemented an Asp.Net MVC 5 n-tier solution which replaced a legacy payroll system for our Sealy plant software. This software supported approx. 600 factory floor workers with their day to day time tracking needs as they performed various functions on the assembly line. Throughout their shift, they would accumulate a book of "chits" (barcodes) which would then need to be scanned at the end of the day at terminals located throughout the plant floor. Various other codes were keyed in as well, the complex calculations of which ultimately generated various reports and worksheets that were fed into workflows to ensure specific payroll departments within the plants received correct payroll info. Scanning of chits, and the subsequent response times presented an interesting challenge due to the near real-time requirements needed by the plant workers. Response time was engineered to be < .001/second due to aggressive caching algorithms, and SQL

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- Server callbacks/triggers. The system processed approx. 250,000 transactions/day, and was integrated into other modules via MSMQ event triggers to facilitate the workflow processing. (**Note:** I have a detailed architectural document for this application available upon request). I lead a team of 4 developers, a DBA, and a dedicated BA. SQL Server 2012 was used as the persistence layer with Entity Framework being used for data persistence, and Azure used as the service bus/host.
- Architected an over-arching Payment Gateway system to facilitate eCommerce payment solutions for both web based eCommerce purchases (using ShopVisible, and DemandWare as the frontend web solutions) as well as POS payments processed in stores. Payment processing was offloaded to CyberSource, Tempus, and TeleCheck as our 3rd party vendors. Payments could be processed at one of three endpoints:
 - On the web via our eCommerce solutions.
 - From a POS terminal inside store locations.
 - Via Dynamics AX 2012 for our call center.
 - All transaction ultimately were funneled via various SDK's and custom services into one centralized Payment Gateway, which was implemented as a WCF service endpoint sitting just inside the DMZ. The service had another outward facing endpoint on the outside of the DMZ, which facilitated transaction processing with the 3rd party payment providers. A series of reports were developed using SSRS for transaction tracking, order history, and various other bookkeeping functionality. Custom AIF services were also developed within Dynamics AX allowing integration into the core AX workflows for our business users.
 - Served as lead developer for our core integrations product developed in house, known as Plug 'n Play. This software was a custom WCF/MSMQ service acting as a façade into various AX AIF services, and served as a conduit for passing around various XML messages, with complex transformations as these messages flowed from system to system. What Payment Gateway was for payment information, Plug 'n Play was to order management and tracking from our various 3rd party eCommerce solutions into the AX ERP system.

1/2013 to 12/2013 (Contract)

Sr. Systems Developer: Homecare Homebase

Reported directly to Kevin Heslin, Systems Architect

- Complete overhaul and rearchitecture of 2 legacy critical line of business Asp.Net webforms applications into Asp.Net/MVC utilizing C# as the programming language, SQL Server 2008 R2 for the persistence layer, and optimizing these sites for a seamless user experience across both desktop and mobile browsing scenarios. Rewrote all middle tier components as WCF service calls into the data access layer to allow sharing of core functionality with other departmental applications.
- Served as technical lead for a conversion project involving integration of 3rd party vendor applications into existing application infrastructure. Integration strategy included building modules that integrated with the vendor's SOAP API for messaging with our main customer portal, providing a consistent user experience across the entire web application portfolio.

5/2007 to 6/2012

Sr. Software Engineer: Skanska USA Building.

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Reported directly to Allen Emerick, director of Applications and Integration

- Served as Lead Developer for a variety of .Net solution initiatives utilizing Asp.Net for the presentation layer, and SQL Server as the data provider, hosted in IIS.
- Designed and implemented ISO 14001 tracking system for Environmental Health and Safety business unit which was essential in helping Skanska attain ISO 14001 certification via Asp.Net web solution, SQL Server 2005 (Migrated to SQL Server 2008 R2)
- Designed and implemented external career candidate tracking portal to facilitate tracking of potential resources for Skanska HR via Asp.Net web solution, SQL Server 2005 (Migrated to SQL Server 2008 R2).
- Designed and implemented web service/SOA infrastructure for our Business to Business initiative, both intradepartmental and external clients via .Net Remoting and WCF.
- Served as dedicated tier 3 support on a rotational on-call basis to handle support escalations concerning custom applications.
- Performed complex application integration tasks to align our architecture with existing 3rd party product portfolio via SSIS packages, extending 3rd party components, and building a web services layer for intra-app communication.
- Performed routine maintenance on our overall Service Oriented Architecture for the enterprise, including a service layer that transformed complex XML schemas into equivalent RDBMS schemas for enhanced data storage and mining, as well as transitioning from .Net Remoting to WCF.
- Completed extensive on the job training for Microsoft Office SharePoint Server 2010 and served as secondary MOSS administrator for the enterprise. The SharePoint environment consisted of approximately 2,000 sites; each active project being serviced by Skanska had a project portal.

8/2003 to 4/2007

.NET Application Developer: EquiFirst Corp

Reported directly to Ken Dennis, Manager of Systems Development

- Development, maintenance, and performance tuning of corporate e-systems utilizing ASP.NET and SQL Server technologies in a clustered/load balanced environment, hosted in IIS.
- Developed a centralized exception management/error reporting system facilitating quicker time to production issue resolution, and better overall systems health monitoring leading to a more proactive approach to production support issues.
- Complete overhaul of corporate data access layer to include transactional support, substantially decreasing the number of production data integrity issues. Performance tuning of corporate data access layer to better utilize intrinsic .NET connection pooling, reducing the amount of wasted SQL Server resources by up to 50%
- Participated in the initial planning and architecture of an automated loan prequalification system utilizing extensive use of ASP.NET user controls, .NET XML web services, and XML parsing, the end goal being to increase loan pre-approvals significantly and thus increase overall revenue via higher loan throughput.

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- Automation of manual ASP.NET batch file parsing jobs by developing a centralized Windows service coordinator utilizing .NET reflection to facilitate a “plug in” type architecture for assemblies whose business rules changed frequently, thus avoiding complete recompilation of ASP.NET e-system applications.
- Ensured timely response and resolution to critical/complex business application support issues.

5/2002 to 8/2003

Developer Support Engineer: Microsoft Corp.

Reported directly to Kristyn Wagoner, Team Manager

- Tier III support for Microsoft development tools and technologies including SQL Server, Internet Information Server, all Microsoft programming languages and methodologies (Visual Basic, C++, C#, XML, ASP, .NET etc), all Microsoft data access technologies, BizTalk Server, Commerce Server, Content Management Server, SharePoint Portal Server, and Application Center.
- Development of departmental level tools/applications leveraging .NET technologies and programming languages.

Certifications: *Microsoft Certified Professional (MCP #[2272802](#))*

Certified by Microsoft on the following skill sets:

- Microsoft Certified Solution Developer on .NET (MCSD.NET)
- Microsoft Certified Application Developer (MCAD)
- Microsoft Certified Solution Developer on Visual Studio 6.0 (MCSD)
- Visual Basic 6.0 Desktop Application Development (70-176)
- Visual Basic 6.0 Distributed Application Design (70-175)
- Developing Windows Applications with Visual C#.NET (70-316)
- Developing Web Applications with Visual C#.NET (70-315)
- Developing XML Web Services with Visual C#.NET (70-320)
- SQL Server 7.0/2000 Database Design (70-029)
- Analyzing Requirements and Defining Solution Architectures (70-100)
- Analyzing Requirements and Defining .NET Solution Architectures (70-300)

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