### Joy George Kunjikkuru

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## **Summary:**

- Have more than 11 years of experience in Software engineering with 5 years as application architect.
- Software engineer willing to develop and maintain systems regardless of tools and technologies. Extensive
  professional experience of over 11 years in .NET Applications in software design, software architecture and
  software development.
- Keeping up to date with latest technologies and practices like **Typescript 2.0**, **Asp.net core**, **Angular2**, **Microservices**, **Serverless architecture**, **Visual studio 2015** to name a few.
- Microsoft certified profession in Windows Application Development using Winforms and WPF
- Expertise in **MVVm** design pattern for WPF applications.
- Experience in working with cloud based technology Azure, web and worker role, tables, Azure ServiceFabric & WebJobs
- Experience in following **Service Oriented Architecture** (SOA) finding out **services** based on various parameters, separating them out, creating boundaries around them, providing means of communication via **RPC with AntiCorruption layer** or **Messaging** based on needs..
- Expertise in architecting solutions following architectural patterns, SOLID design principles and Gang of Four design patterns. Documentation skills include C4 architecture convention and tools such as Visio and Visual Studio modeling tools.
- Experience in enterprise integration patterns such as **Aggregator**, **Message Router**, **Asynchronous Messaging** following loosely coupled architecture to keep **messaging as an infrastructure concern**.
- Experience in using **Process Manager** Pattern for managing **long running process**.
- Expertise in working with web based api to provide interaction to server side data from Single page applications (SPA) on Client side.
- Expertise in **Object Oriented JavaScript** and **Design patterns in JavaScript** like publisher, subscriber, promises and deferred, timers.
- Experience working with several **JavaScript libraries** like AngularJS, JQuery, and Bootstrap.
- Expertise in implementing and following **TDD** on browser side using tools like **Jasmine** for Assertion, **Chutzpah** as test runner and .Net side using tools like **mUnit** for Assertion, **Moq** for mocking
- Expertise in integration with **Social Media** and implementing Analytics on website using **Google Analytics**
- Expertise in working with MVC 4, LINQ to Object, Entity Framework 6, web Apis, and Unity container for IOC.
- Expertise in implementing code quality initiatives such as Gated check-in, automated code review tools such as FxCops etc...
- Experience in working with several persistence related technologies like Entity Framework with SQL Server for ORM, Azure tables (NOSQL) persistence on cloud.
- Knowledge in working with SSIS, SSRS for reporting and ETL needs.
- Helped transition team to **Agile** environment, following **Agile** principles for software development along with **TDD** practices.
- Experienced in setting up **TFS** and **build definitions** which would enable **Continuous Integration** and **Gated check-in** providing complete implementation of TDD methodology.
- Expertise in keeping the infrastructure components up to date and **upgrading to latest version** with new releases.
- Experience in implementing solution for searching content on website using full featured Search Engine utility like Lucene or SQL Server Full Text Search..
- Expertise in reverse engineering existing system and resolving critical issues.

- Experience in documenting the gathered knowledge and conducting knowledge transfer sessions.
- Motivated self-starter with exceptional team building, Leadership, Project Management and interpersonal skills
- Excellent communication and interpersonal skills. Makes conscious efforts to improve the process and ensure that coding standards and guidelines are followed in the team to maintain high quality of the software.
- Possess the Problem Analysis skills to understand the existing framework and modules to solve the defects in them. Excellent team player.
- Expertise in maintaining legacy codebase while adding new features.
- Active in technology communities. Frequently writes technical articles on blog (http://www.joymonscode.blogspot.com) and answer in StackOverflow.

# **Technical Skills:**

.Net Technologies : .Net 4.6, 4.5. 3.5, 2.0, 1.0 LINQ, Enterprise Library, ASP.NET MVC, WCF,

Web Services, ADO.Net, Windows Services, WPF & Windows Forms.

Languages : JavaScript, TypeScript, C# 3, C# 4.5, C# 5, C# 6.0

Asp.net : MVC4, MVC5, Asp.net Core 1.0 Visual Studio : VS 2012, VS 2013, VS 2015

ORM and Data Access : Entity Framework NOSQL : Azure Tables

**Cloud Technologies**: Azure ServiceFabric, Functions, WebJobs, WebApps, Web and worker Roles,

Tables, Visual Studio Online and its integration with Azure

Javascript libraries : Angular JS, Bootstrap, JQuery, Kendo UI, Angular UI

Client side TDD Tools : Jasmine, Chutzpah, Moq & mUnit
Databases : SQL Server 2008, 2012 & 2014
Designing Tools : Visio, Visual Studio modeling tools

Web Technologies : HTML, CSS, JavaScript, AJAX, JQuery, Telerik Controls

**Source code Repository** : TFS, Github with Visual Studio, SVN

**Software Tools**: Resharper, Firebug, WinDbg, Expression Blend, F12 tools.

**Networking Tools** : TCP/IP, Telnet, FTP.

Operating Systems : Windows 10, Windows 8, Windows 7, Windows 2008, Windows XP, 2000,

Web Servers : IIS

**Social Media Integration** : Google Drive integration, Facebook, twitter feed widget integration

**Analytics** : Google Analytics

## **Education:**

- MCTS (Microsoft Certified Technology Specialist) for .NET Applications.
- MBA (Information Systems Management), Bharatiar University Coimbatore, India.
- **BE** (Bachelor of Engineering in ComputerScience), Anna University, Chennai, India.
- **Diploma** (Computer Science), State board of technical education, Kerala, India

### **Professional Experience:**

IRIS Software, Edison, NJ Consultant Application Developer May 2016 – Present

Project - Desktop framework (May 2016 - Present) Client - Bank of America Merrill Lynch, Pennington, NJ

## **Role - Application Developer Level-V**

This is highly customizable desktop container framework to host individual applications for different user roles. WMW+ is for financial advisors. It can host variety of applications such as pure web apps, rich client applets and desktop apps. It provides streamlined asynchronous communication channel for the apps to communicate each other. Also it keeps track of user preferences such as hotkeys, favorites etc...

## **Responsibilities**

- Developing the client side framework using WPF & WinForms technologies present in Microsoft .Net
   4.5 framework. C#5.0 as language and Visual Studio 2015 as development tool. The source control is
   TFS and it is used to automate the builds.
- Follow **SOLID Design Principles** for achieving better design.
- Work with several **GoF Design Patterns** like Factory, Builder, Command, Facade, Singleton in order to achieve clean separation, better management of dependencies.
- Develop test apps to demo the capabilities are created using pure HTML, JavaScript.
- Use XML is the major format used to store configurations.
- Maintain server side using **SOAP binding** based services.
- Use **WCF** is used to expose the services.
- Use Asynchronous messaging with the help of WCF and is keep this as infrastructure concern.
- Maintain API to interact with the messaging system as **ActiveX** control which can be hosted inside web pages.
- Develop test apps using JavaScript, HTML5,CSS & AngularJS

**Environment:** Solid Design Principles, GoF design patterns, Visual studio 2015, Windows 10, C# 5.0, .Net 4.5, WPF, WCF, SOAP Web Services, Linq, TFS. HTML, Javascript, XML, ActiveX & WinForms.

Orion Systems Integrators Inc., Woodcliff lake, NJ Application Architect Jul 2009 – May 2016

Project - eAudIT (Jul 2009 - May 2016) Client - KPMG Role - Application Architect

This is a fully fledged auditing solution for a reputed client of Orion Inc. It uses WPF as well as AngularJS for desktop client and web client respectively, WCF for communication and SQL Server as database. The main highlight of this application is the ability to customize the screens and application logic by business analysts without the intervention of developers. The code base is setup in such a way that the same code can be compiled for WPF and Silverlight which reduces the maintenance overhead. Silverlight client is now retired and replaced by Angular JS based web client.

### **Responsibilities**

- Working with product owners to decide the features, identify non functional requirements and translate it to architectural specifications.
- Preparing architectural design documents using C4 architecture documenting convention.
- Designed component and microservice interactions and defined SOA boundaries.
- Helped development team to do cash management.
- Designing the services which uses Net pipe, net tcp, ReST & SOAP bindings.

- Transferring the high level architecture to offshore architect for preparing low level design
- Ensuing the code is always aligned with architecture also 3rd level code review.
- Done research on hosting audit applications to Microsoft Azure cloud platform.
- Conducting Proof of Concept efforts before adopting any new technology or technology upgrade. Azure platform migration using Azure ServiceFabric, WebJobs are few to name.
- Coding core framework in **TypeScript** & **C**#
- Worked with Razor, Action Filters, Authentication, Routing, Html helper.
- Created modularized code in Javascript by creating **library files** for various purposes like Ajax, error handling and so on.
- Used several patterns like **pub sub**, **promises** and **deferred** in Javascript.
- Worked with **TypeScript** that provides type safety to **Javascript**.
- Evaluated new Javascript libraries for use in new project like Angular JS, Coffee Script.
- Architected Data Access Layer for multi-tenant database.
- Worked on **SSRS** and evaluated a number of other reporting tools in market for developing Reporting solution.
- Designed custom Reporting solution to retrieve data based on user selected fields and filters. The
  Reporting solution was developed following SOLID principles and worked with complex data stored in
  Entity Attribute Value format. Active Reports and SSRS used as report viewer and it would also allow
  exporting the data to Excel, pdf and other formats.
- Worked on **SSIS** to develop **ETL packages** for importing data from old versions to new versions.

**Environment:** JavaScript, TypeScript, AngularJS,Bootstrap, .NET 4.0, .NET 4.5, .NET 4.6, C# 5.0, WCF, LINQ, SQL Server 2008 & 2012, SSIS, SSRS, Visual Studio 2015, WPF, Telerik WPF controls.

Project - Data warehousing & mining (May 2015 – Dec 2015) Client - KPMG Role - Application Architect

This is an audit data warehousing and mining application for a leading audit firm which Orion Inc is serving. It collects data from audits happened in the past as well as ongoing in a periodic fashion and keep in warehouse for future analysis and reporting purpose. Since the data collected has sensitive and personal identifiable information, it is scrubbed before warehousing. It has all the operations of normal data warehousing such as loading data into staging, cleaning the data, moving to warehouse and preparing cubes which are fast to play around with. It uses SQL Server as storage, SSIS and .Net in its processing pipeline

## **Responsibilities**

- Re-Architect the existing data warehouse solution after defining the product features and defining the non-functional requirements.
- Decouple the system using **asynchronous** messaging and keep the messaging as infrastructure concern...
- Define the **Service contracts in WCF**, a major component in SOA, which would act as an interface to the data warehouse.
- Identify the low performing components of the system and improve the speed.
- Ensured pluggable architecture, by following **SOLID Design principles**.
- Review the web based interface to ensure its meeting industry standards.
- Lead the efforts to implement **TDD**. Used **Moq** as the Mocking framework.
- Review the application and suggest the places where **Asp.net AJAX** is applicable to increase performance.

**Environment:** Asp.Net, .NET .NET 4.0, C# 4.0, AJAX, Telerik Controls, JQuery, WCF, LINQ, SQL Server 2008,SSRS, SSIS, SSAS, Visual Studio 2015.

Project - Audit Platform (Oct 2014 - Aug 2015) Client - KPMG Role - Application Architect

This is a highly scalable server platform for one of the Orion Inc's reputed client to host audit applications. The primary duty of this platform is to manage the web, processing and database servers in the server environment. Platform is capable of centrally holding audit information from other audit applications. It provides queueing system, scheduling mechanism, notification services and interconnection points for all the audit applications hosted on it. The platform publishes APIs for other audit applications to interact with platform as well as to each other. The APIs are backed by WCF services. A Management Console built using ASP.Net MVC acts as console for managing the audit platform..

## **Responsibilities:**

- Architect an enterprise wide software deployment platform for auditing applications by analyzing existing applications and their deployment model.
- Designed Microservice management portal and decided SOA boundaries.
- Helped development team to do cash management.
- Bring unified practice to address cross cutting concerns such as **messaging**, logging etc...
- Architect multi-tenant database model for ensuring security but in the same time reducing the cost.
- Architect web based management console to administer the environment using **Asp.net MVC 4, jQuery, Telerik Controls and WCF** to provide web 2.0 experiences to end user.
- Architected the support tools needed for production support teams.
- Done research in Microsoft Azure cloud platform for feasibility to host in it.
- Done Proof of Concept applications to host platform in Azure using ServiceFabric, WebJobs etc...
- Making sure the management console is generic and have capabilities to applications to host their own plugins.
- Ensuing the management console platform is meeting the industry standards...
- Making sure the platform code is aligned with the architecture.
- Coding critical components of the system in C# as well as JavaScript
- Improved performance of the Search, by upgrading to newer version of Search Engine, load balancing the incoming search requests.
- Did research for client side libraries and decided to use jQuery & Telerik controls.
- Working closely with business to resolve a number of critical maintenance tasks, and taking the ownership to solve them independently.
- Helping the development team to author a number of critical deployment documents, clearly listing down instructions and rollback plans for IT Team.
- Researching the cloud technologies and feasibility to bring the audit platform to cloud. The options include ServiceFabric, WebJobs, Web and Worker Role, Azure Table, Queue, Blobs etc...

**Environment:** .NET 4.5, C# 5.0, ASP.NET MVC 4, Visual studio 2013, Telerik Controls, JQuery, JavaScript, WCF, LINQ, Entity Framework, Messaging, OData, SQL Server 2008, Azure, ServiceFabric

Project - OPL Mobile App(Mar 2012 - Apr 2012) Client - Orion Internal Role - Application Architect

Orion Premier League mobile application delivers the real time status about the recreational activities conducted by Orion to its employees. It also has a web based thin client where people can get more details along with socialization. This is an internal application mainly targeted for learning purpose.

# **Responsibilities:**

- Architect a simple Android mobile & web application for viewing internal company events with data entry and real time updates.
- Design the database and write basic queries.
- Coding the Android application in Java & Web App using HTML5 & jQuery.
- Coding and unit testing the WCF services using **Azure Web Roles**.
- Socialise the application among the co-workers.
- Host and maintain the WCF services using **Azure Web Role.**

**Environment:** Android, Java, .NET 4.5, C#, ASP.NET MVC 4, JQuery, JavaScript, WCF, LINQ, Entity Framework, SQL Server 2008, Azure, Worker Role, Web Role.

Project - ShopBeNimble(Nov 2011 - Apr 2012) Client - Orion Internal Role - Application Architect

A mobile application backed by Windows Azure services which brings the day to day grocery shopping offers to handheld devices. This helps us to keep track of the grocery needs and makes the shopping smarter by identifying user by their facebook, google or live ids.

### **Responsibilities:**

- Interacted with client & partners to understand and shape the vision of the product.
- Architected scalable shopping helper application for mobile clients.
- Optimized the application architecture for **Microsoft Azure** services such as Web Role & Worker Role.
- Enforced the security of the application via federated authentication.
- Coded the cloud platform independent caching engine.
- Coded core Android & WCF service components.
- Helped the development team to host and maintain the WCF services using Azure Web Role.
- Designed text search feature using Lucene.Net

**Environment:** Android, IOS, Java, .NET 4.0, C#, ASP.NET MVC 3, JQuery, JavaScript, WCF, LINQ, Entity Framework, SQL Server 2008, Azure, Worker Role, Web Role & Lucene.Net

Identitymine, Kochi, India Sr. Software Engineer

Nov 2007 – May 2009

Project - Surface bridge game (Mar2009 May 2009) Client - Identitymine internal Role - Sr. Software engineer This is a Microsoft surface implementation of the famous card game Contract Bridge. This is aimed at casinos. This card game is multi touch enabled like other surface application. It allows 4 players to play around the table. It stores each player information as well as details about the games they played.

## **Responsibilities:**

- Understanding requirements on what needed in the demo and preparing demo plan.
- Developing the custom controls required for the WPF based Microsoft Surface UI.
- Developed the game engine which has the core algorithm using C#.Net.
- Designed the API for the game engine to the UI.
- Used Ling to make the code readable
- Unit testing the game engine.
- Developing the game UI using MVVm architecture in WPF.
- Designed the database structure to keep the credentials and game points
- Developed stored procedures to access the game database.
- Designed the web services using WCF to expose the server side functionalities.
- Participated in peer to peer code reviews
- Prepared the MSI packaging using NSIS tools

**Environment:** .NET 3.5, Custom API, MVVm, Microsoft Surface, C#, LINQ, SQL Server 2005, WPF,XAML,WCF Expression Blend.

**Project - Client Preview Site (Oct 2008 - Mar 2009)** 

**Client - Identitymine Internal** 

**Role - Sr Software Engineer** 

This is a Silverlight project for Identitymine to showcase their design assets to the clients. So that clients will get an idea how their applications will look like when delivered. This site can also contains documents, audios and videos to demonstrate the application flows and behaviour. Clients are entertained to give their feedbacks on each mock—up screens and videos to improve the design. This site is responsible to show the design skills of Identitymine to the clients by its own look and feel since Identitymine is mainly focusing on improving user experience.

### **Responsibilities:**

- Understand the requirements and high level design.
- Brainstorm about low level implementation details.
- Code the application using C#.Net.
- Unit test the application.
- Develop custom controls required for user interface.
- Write JavaScript to mitigate and shortcoming of Silverlight.
- Develop required services in WCF.
- Technology upgrades to latest Silverlight versions.

Environment: Silverlight, C#, .Net 3.5, WCF, JavaScript, Windows server 2003, Windows XP, Windows 7

Project: Crossfader(Dec 2007 - Aug 2008)

#### **Client - Microsoft**

# **Role - Sr. Software Engineer**

Crossfader 2.0 is a completely new site in Silverlight which built upon the concepts of the existing community site enabling musicians to expose their work. This is an ongoing project for Microsoft and in future this will replace the existing www.crossfader.com

## **Responsibilities:**

- Understand the high level design.
- Develop the application using C# in modular fashion.
- Develop and unit test **Silverlight** custom controls required.
- Define the **WCF** service contracts for data retrieval.
- Write JavaScript to mitigate and shortcoming of Silverlight.
- Help the designers to apply the layout using **Expression Blend**

**Environment:** C#, Silverlight 2.0, JavaScript, WCF, Expression Blend.

Project - Blendables Essential Mix (Apr 2007 - May 2009) Client - Identitymine Internal Role - Sr. Software Engineer

Blendables is an amazing product from Identitymine which is a WPF library includes tools and components for developers. I am working in its various levels of engineering such as development, testing, documentation etc....

## **Responsibilities:**

- Analyze the requirements from customers and align the features and bugs.
- Develop new features as and when required using C#.Net.
- Upgrade the controls using **WPF** new features.
- Support the library by means of mails and forums.
- Develop test and demo apps.
- Make sure the controls are compatible with **Expression Blend** tool.
- Unit test the components and controls in the library.
- Do the changes in installer when necessary.

**Environment:** C#, .Net 3.5,WPF, Expression Blend

Syncfusion Software, Chennai ,India Software Engineer Level 4 Nov 2005 – Apr 2007

Project - Syncfusion essentials tools for WPF & Winforms Client - Syncfusion Product Role - Software Engineer

Syncfusion WPF controls package helps developers to give good look and feel to their .net 3.0 applications. It came to role, if the standard windows controls are insufficient to implement the requirement. This suit of professionally designed custom controls and components also extend to WinForms to enhance applications both

functionality wise and look wise.

# **Responsibilities:**

- Do the developer support to the **WPF** and **WinForms** controls via forums, mails, incident tracking system and occasionally via phone.
- Develop the demos for the custom controls in both C# & VB.Net using all .Net frameworks available.
- Align the new features and defects in priority for development.
- Test the controls before every release.
- Automate the testing of controls using **QTP**

Environment: ..Net 1.0,1.1, 2.0 & 3.0, C#, VB.Net, WPF, WinForms, QTP