

# *Amit Malhotra*

Mobile and .Net Developer

Mobile: 0401072986

Email: [codebased@hotmail.com](mailto:codebased@hotmail.com)

Web: [www.imcodebased.com](http://www.imcodebased.com)

PMI-ACP, *Certified Agile Practitioner*

MCSD, *Microsoft Certified Solutions Developer*

---

## **EDUCATIONAL QUALIFICATIONS:**

***MCA (Engineering – Computer Science), B Level, a professional 4 years Computer Science master course.***

***MSc (Information Technology), a professional 2 years Information Technology degree.***

## **EXPERIENCE SUMMARY**

18+ years of Software Development and Leadership experience in innovation, project strategy, implementation programs on wide ranging enterprise platforms through excellent technical skills and software processes (waterfall, SDLC & Agile - Scrum, TDD, Kanban) using tools such as Jira

Domain knowledge across Human Resource, Payroll, Accounting, Asset Management, CRM, Recruitment processes, Oil and Gas Industries, Procurement, E-Commerce, Banking and Finance processes.

Experience in real-time, client- server and highly available web systems using cloud architecture; Microsoft Azure and Amazon AWS, promoting best code practices, and delivering the best of art solutions.

Continuous Integration and Continuous Deployment pipeline and practices using Octopus/ Teamcity/ Jenkins (Compilation, Testing and Deployment), Sonarqube (Code Quality), Unit Test, Integration Test, Acceptance Test and Performance test using jMeter tool

Hands on experience in developing high traffic REST API in .net core, C#.

Extensive interest in developing community projects using Open source frameworks and tools such as nodejs, android, react, react-native, graphql, kafka, kong api gateway,

Experience with relational and file-based database technologies such as CosmosDb, MongoDB, PostgreSQL, MariaDB (MySQL) and MS SQL

Design and Implement Solutions in Android (Java) for Commbank Mobile App with .Net WEBAPI2 backend services

Strong understanding of Computer Science fundamentals including OOP Principles, data structures, UI patterns and algorithms.

Interpersonal skills, onsite experience, providing problem resolution and insight from a technical perspective. Collaborate with other software developers to plan, design, develop and test the software outcomes

Expertise with aligning solutions to business strategies and software architecture needs.

Defining Critical Success Factors and Measurement Metrics to ensure organizations can continue to measure the effectiveness of strategic initiatives.

Working in Microsoft and Open Source technologies along with Business Owners has hardened my work ability to deliver software within specified Budgets. I have sharpened my skills in Software technologies along with IT services, and produce the best possible Software Architecture.

**Detailed Work Experience:**

**Commonwealth Bank of Australia**

Specialist Software Engineer

Feb 2018 (Present)

.Net core REST APIs, Open Banking, AWS, Azure, NGINX, WAF, DNS, Firewall, Ansible, Solution Architecture and Design. Kafka Stream, Kafka Consumers and Producers.

**Commonwealth Bank of Australia**

Senior Software Engineer

Feb 2015 - 2018

I am working as a full stack mobile developer for the Commbank App team. My key strength has been on Architecture design and development using Android with .Net backend. I am creating user-friendly, aesthetically pleasing and fully functional applications for Android and Web Interface. My day to day job involves performance analysis of an application using load stress tools such as JMeter, DotMemory and Dump Analysis for servicing our millions of CBA mobile application customers.

I have a clear understanding of the backend as well as web, mobile principles and practices. Thus, I am able to solve complex problems within limited resources and deliver better products.

Technical workflow:

I am involved in delivering RESTful services using the .Net Core, .NET framework, with the basic touch on MVC framework for legacy projects. The workflow has been maintained by using git with Teamcity build system for continuous integration and SonarQube for Quality Assurance. In addition, the code is delivered with four different types of test cases - Unit Test, Integration Test, Acceptance Test and Penetration Test (OWASP security framework). The BDD (Specflow) or TDD work model is applied through postman, using newman CI automation. We are now adapting Event driven Architecture with the help of Apache Kafka and Docker, Kubernetes using AWS/ Azure cloud platform.

I have been bringing various changes within my team and beyond by introducing the following CI initiatives for Native as well as backend space.

- Code Quality Analysis using SonarQube with Resharper
- Postman (Newman) Integration in Teamcity.
- Android Training sessions for iOS and .Net Developers
- Omniture Console for Android
- Improved code performance using DotTrace and JMeter tools
- Leading .Net Guild Sessions and promoting knowledge sharing through technical workshops
- Load testing through jMeter integrated with Teamcity
- Penetration testing using OWASP Zap with Teamcity

Key technologies and tools used:

Backend : Microsoft Visual Studio.Net 2019 , .Net Core, .NET, C# , Nuget Packages, WebApi2, ASP.NET MVC, REST, NUnit, NSubstitute, Automapper, Autofac, JWT (JSON Web Token), Splunk, AppDynamics, Hangfire, Oracle coherence, Resharper with DotTrace, jMeter, Postman, Teamcity, Jira, GitHub Enterprise, Stash, OWASP Zap, Apache Kafka, Nginx, Ansible

Native: Android Studio 2. Android SDK 24, Java, Android Studio, Google Play Services such as Map, firebase,

NearBy, Dagger2, EventBus, RxJava, ButterKnife, Picasso & Glide

You may check about my latest work and industrial contributions, including volunteer work at <https://www.linkedin.com/in/imcodebased> and [www.imcodebased.com](http://www.imcodebased.com)

## **Projects**

### **Performance Engineering:**

My job is to find performance bottlenecks in Commbank APP. It involves studying their complex end to end system design, which includes Mobile as well as REST API, and then propose a new solution to the wider architecture audience for their endorsement. I gathered Architecture, System Design, Azure Cloud and .Net core development experience.

- Understanding of current complex system, logical architecture as well as physical (infrastructure) architecture
- Designing Effective Performance Test and Interpreting test results produced by NFT team.
- Tools & Technologies used: JMeter, dotTrace, dotMemory, Splunk, AppDynamics, Fiddler, WireShark, protobuf, coherence cache, Azure redis cache, Azure Web Role, Azure App Service, Thrift, GitHub Enterprise, Teamcity, Nuget, Stash,
- Dump Analysis using DebugDiag, WinDump
- Run workshop on Moving existing .net framework projects to .Net core technology using Azure platform.

### **Saving Goals**

This initiative is about providing a saving goal challenge to the Commbank Mobile App customer. It is a part of the 360 financial wellbeing vision, where customers will benefit from tools and tricks for managing their finances. Where as the Bank will be able to engage customers for different products based on their interest/ the type of goals that they create in the App. I have played a lead role in delivering all backend services, using Microsoft platform.

- Architecture and design backend solution.
- Develop REST API, using C# .net 4.x, nunit, AutoFac, NSubstitute, Visual Studio
- Integration with different downstream systems, such as BPOINT Payment Gateway, **AEM** (Adobe Experience Manager).

### **Transaction Notification:**

Turn Transaction Notifications on in the CommBank app and we'll instantly alert you when you pay using your CommBank debit or credit card, and when you receive money into your everyday account.

- Develop REST API, using C# .net 4.x, nunit, AutoFac, NSubstitute, Visual Studio
- Integration with different downstream systems, such as Cassandra DocumentDB based services using Thrift SDK.

### **Airtasker & CBA identity verification solution**

Commonwealth Bank of Australia has partnered with Airtasker to offer its customers a new way to securely confirm their identity by adding a '[CommBank Identified](#)' badge to their Airtasker profile.

- Develop REST API, OAuth,, using C#.net 4.x, nunit, AutoFac, NSubstitute, Visual Studio

### **Merchant Rewards:**

Rewards are offered to CBA customer, using their transaction data.

- Architecture and design backend solution.
- Develop REST API, using C#.net 4.x, Hangfire, SSIS Jobs, Liquibase DB migration scripts, nunit, AutoFac, NSubstitute, Visual Studio
- Enhance Android Native App using Java, retrofit, eventbus, glide, Butterknife, Android Studio.

### **ECV & OFIPull**

App Users can become a CBA customer by downloading their app and sign up for multiple accounts. The Electronic customer verification (ECV) is performed online, using different identification systems such as Driver License, Passport, Medicare card. In addition, they can also make a deposit upto 200 AUD credit into their account, using Other Financial Institute (OFI) debit card.

- Develop REST API, using C#.net 4.x, nunit, AutoFac, NSubstitute, Visual Studio
- Integration with different downstream systems, such as BPOINT Payment Gateway, **AEM** (Adobe Experience Manager).
- Enhance Android Native App using Java, retrofit, eventbus, glide, Butterknife, Android Studio.
- Create reusable custom views.

### **Payment UI Revamp:**

This project was about redesigning Payment interface in commbank app:

- Enhance Android Native App using Java, retrofit, eventbus, glide, Butterknife, Android Studio.
- Create reusable custom views.

### **Wealth:**

CBA customers can see a complete snapshot of their wealth. It includes news extracted from AEM system.

- Develop REST API, using c# .net 4.x, nunit, AutoFac, NSubstitute, Visual Studio
- Integration with different downstream systems, such as **AEM** (Adobe Experience Manager).
- Enhance Android Native App using Java, retrofit, eventbus, glide, Butterknife, Android Studio.

## **Commonwealth Bank of Australia**

.Net Lead Developer

June 2014 - Feb 2015

I was hired for the startup at CBA for building a request management system that is business processes driven. This project is based on SPA architecture, uses AngularJS, EmberJS with REST-API as Backend services. I am leading backend services, using latest .net framework and trends, along with Front-end admin panel that is in AngularJS.

Highlights:

- Meeting managers from different sub-departments within RBS such as Campaign, Analytics and Strategist and be a part of aligning technology to Business Processes.
- Promoting Agile culture within team.
- Defining Technical Architecture for Request Management System
- Implementing API backend services, using Entity Framework 6.0 Code First approach (Fluent API) with ASP.NET WebAPI 2, MS SQL 2012.
- TDD using MOQ with UnitTest.
- Providing framework assistance with the Frontend in EmberJS, uses EmberData.
- Implementing Continuous Integration process using Teamcity, Gits.
- Integration with Sharepoint web services, SMTP, using windows services for batch jobs.

## **Recruitlive Pty Ltd, Sydney, Australia (<http://www.recruitlive.com.au/> )**

Recruit Live is a CRM software product that manages recruitment process. It's a fully integrated 'end-to-end' web-based recruitment management system designed specifically for recruitment of professionals and their support staff

Technical Project Manager, Architect and .Net Lead Developer

Aug 2009 – June 2014

---

In mid-2009, Managing Director of the group companies had supported my initiative on moving Recruit live, ASP based software, to the latest technologies. I was given a chance to drive and lead this CRM project with 15 people software development team and 5 Top Senior Managers of different Recruitment companies. In this role I have introduced Agile Principles to the Management. So far, I have developed and delivered more than 25 modules of the Recruit live, CRM.

In addition to Hands-on experience with Microsoft Technologies such as .Net, this role spans end-to-end consulting engagements across Management, Strategy, Innovation, Technical architecture and is primarily a technical consulting role to ensure client initiatives are strategized and defined in close alignment with desired benefits.

This core technical role involved strategizing Solutions Development team, communication with all identified business units to ensure the timely development of application components and documentation of the Detailed Solution Design/Architecture in accordance to the Business requirements and business cases.

Working within the core senior development team, this role involves exposure to all of recruitment business and accounting system, to look at solutions from an efficiency perspective to finalize and bridge the gap between High level solution Design and Functional Specifications, completing the architecture & design. Once the design has been done, this role involves hard core development, supervision and guidance for end-to-end application development through agile methodology and to provide leadership to architectural aspects.

I've also helped IT department by giving my innovative ideas and Process improvement through ITIL – Service

Management Framework.

**Overall Contributions:**

- **Architecting, Developing, Maintaining and managing more than 25 in-house products.**
- Effective Technical Architecture initiatives for CRM Web based application Innovation
- Strong OO design, Patterns and IoC implementation
- Development in HTML, HTML5, CSS, ASP.Net MVC 2.0 and MVC 4.0 with WCF-RIA and EF 4.0
- Microsoft Azure, Cloud, Integration.
- Database Layer implementation in MS SQL 2008 and MS SQL 2012.
- Worked with Microsoft Technical Architect – John Papa for Recruit live Silverlight Rich Internet applications (RIA) Architecture.
- Provide Architectural leadership to the development team and a full spectrum reach of the project ensures end-to-end standards are met correctly
- Presentation at Seminars on innovative topics such as Agile Methodology, SCRUM benefits.
- Team Foundation Server Implementation with JIRA – Greenhopper, for SCRUM – Agile Development/ Architecture Leadership/ Framework Development for the technical team
- Implementation of changes in Software Development and step-based change process for transition.
- Architectural involvement for application design, development and deployment
- Initiatives for Business Process Outsourcing (BPO) and IT Outsourcing (ITO)
- Contribution to short term and long term research initiatives
- Process documentation and optimization for business processes.
- Development of Process & Business Innovation instruments
- Expertise in developing browser compatible web software.
- Expertise in defining the requirement for the non-technical team; in the form of flowcharts and diagrams.
- Expertise in writing documentations for technical staff; and in process documentations for development process
- Development and Demonstration of Pilot Project for project approval.
- Head of team member selection process; focusing talent team build.
- Training non-technical staff for new development (Sprint Review)
- Defining project Vision, Road Map Work Breakdown Structure (WBS) for the team and the management
- Proactive architecture modification and critical decision maker (technical).
- Playing a role as a Scrum Master
- Cost effective solutions to business requirements that align with Enterprise Strategy
- Enterprise & Business Process Modeling using tools such as Visio.
  
- Consultative/Architecture Leadership for the team across multiple countries and states.

**Android Mobile Application (new): Nov 2013**

- Responsible for creating the Architecture of Recruitlive Mobile application
- Participated in the complete agile development process including planning,
- Design/architecture and demo sessions.
- Working with UX team to design and implement UI elements based on wire frame designs
- Solve and validate complex interaction models through rapid prototyping
- SQLite implementation database design
- AsyncTask and Custom Widget Implementation
- Implementation of Android Push Notification Service - Google Cloud Messaging (GCM)

## Projects

### **Recruitment Software (CRM):**

The initial request was to develop and deliver five core modules of Recruitment Software. These includes: Client, Contact, Candidate, Job and Job placement. In this project the main challenge that we'd faced to integrate new technology, ASP.NET MVC into old technology, ASP. This way the Stakeholders can see Return On Investment (ROI) and users can start getting new Architecture based solution that resulted into increase in their productivity.

- Solutions Architect, Technical .Net Lead Developer with Scrum master (Agile) responsibilities.
- Prototyping through UML (Visio), and Wireframe through Pencil Software
- Develop and Design Views HTML, CSS, ASP.NET MVC 2.0 (lately upgraded to MVC 4.0) based architecture, JQUERY, JQUERY UI, AJAX, JSON, XML.
- Create Custom classes in JavaScript for routine work.
- Domain Layer implementation with WCF-RIA, connecting to SQL 2008 (lately upgraded to SQL 2012) through Entity Framework 4.0.
- TDD – Test Driven Development through ASP.NET MVC Test Case suite to test Controller, View Model and Entity Framework (Model) implementation
- Implementation of Telerik MVC Grid Control.

### **Recruitlive Android Mobile Application Development**

Recruitlive Android Mobile App is underway and will be released by April 2014.

- Software Developer with UI Designing responsibilities.
- Wireframe through Pencil Software
- JSON, ASP.NET WEB-API using .Net 4.5 in Visual Studio 2012
- SQLite, Java, Android Libraries, Integration with LinkedIn using Eclipse IDE.

### **Timesheetlive:**

Timesheetlive is an online timesheet workflow management system. It facilitates timesheets submission and approval processes with an inbuilt approval system, which allows approval cycle up to two levels. In addition, Timesheetlive has the jQuery Mobile web application (POC).

- Develop and Design Views using HTML/5, CSS, JQuery, JQuery Mobile, AJAX
- Create Custom classes in JavaScript for routine work.
- Separate Domain Layer from rest of the Application. Integrate Implementing ASP.net MVC 2.0 (lately upgraded to MVC 4.0) based architecture, using JQUERY AJAX technology with JSON.
- C#, .NET, WCF Web Service, Authentication through Token.

### **Recruitlive Mail – Revamp**

Recruitlive Mail module was important for the company to store all relevant communication in place with Business records. Recruitlive Mail was revamped at Backend as well as UI Level. In addition to .Net

- System Design, System Development and Testing
- Develop and Design Views HTML, ASP.NET MVC 2.0 (lately upgraded to MVC 4.0) based architecture, JavaScript, JQUERY, JQUERY UI, AJAX, JSON, XML.



- Web Service Integration, C#, .Net 4.0, Exchange Web Service, Office 365, and Cloud.
- Implementation of Microsoft Azure (PaaS) Blob services for attachment storage.
- Microsoft Outlook 2010/2013 Add-on Integration

### **Recruitlive and Azure Cloud Integration Projects:**

Azure Blob: Recruitlive application was earlier storing the documents/ images all database which is causing performance concerns. As a solution all documents/ images are moved to Azure blob using the library class.

- System Design, System Development and Testing
- .NET 4.0, C#, LINQ, EF, API

Database Synchronization between Azure Server and In-house Server: Instead of using the DB Sync we developed our own replication application which syncs the AZURE Server and In-House database Server in real time. The reason was obviously the cost and complexity overhead.

- System Design, System Development and Unit Testing
- .Net 4.0, Windows Service, C#, LINQ, EF

### **Interviewing and Testing System (ITS)**

ITS is an online Interviewing and Testing System. This web-based application is a tool to conduct tests and screen candidates from any location.

- HTML, CSS, JavaScript, jQuery, AJAX,
- Integration of ITS in Recruitlive through ITS Web service.
- C#, .NET, WCF Web service, Authentication through Token.

### **Recruitlive Integration with LinkedIn, Twitter and Facebook.**

Recruitlive has been integrated with LinkedIn API for multiple activities. These include: Import LinkedIn profile CV, Create Candidate or Contact through imported LinkedIn profile, Search through CMS interface and show result within.

- System Design, System Development and Testing
- ASP.NET MVC, .Net, C# Windows service
- Implementation of Microsoft Azure (PaaS) Blob services for attachment storage.
- OAuth Integration

### **Recruitlive Integration with FTP, NTFS and Database File System**

It provides an end-to-end integration of File system within Recruitlive.

- System Design, System Development and Testing
- HTML, CSS, ASP.NET MVC, JavaScript, JQUERY, AJAX, .NET 4.0, C#, LINQ, EF

### **Recruitlive Integration with Chrome Extension**

Idea behind this extension is to integrate LinkedIn website browsing with Recruitlive (In-house CRM) system. In addition it also provides some options to the user so that navigation can be made easy.

- Software Development



- HTML 5, CSS, JavaScript, JQUERY, Web Service

### **Microsoft Dynamics – NAV 4.0 integration with Recruitlive and Azure Blob**

Recruitlive application is integrated with Microsoft Dynamic NAV 4.0 by creating a WCF service to communicate/ export / import data to and fro from Microsoft dynamic NAV 4.0.

- System Design, System Development and Testing
- ASP.NET MVC, .Net 4.0, C#, LINQ, EF

### **Recruitlive Asset Management Module**

To extend the services of Recruitlive, Asset management is also done to keep a record of assets allotted to the company employees/ departments

- System Design, System Development and Unit Testing
- HTML, CSS, ASP.NET MVC, JavaScript, JQUERY, .NET 4.0, C#, LINQ, EF

### **Recruitlive Reporting with Highcharts**

Recruitlive Report module was revamped and extended further for current and future forecasting dashboard. The Highchart Javascript library was used for Pictorial representation of data.

- System Design, System Development and Unit Testing
- HTML, CSS, ASP.NET MVC, JavaScript, JQUERY, .NET 4.0, C#, LINQ, EF

### **Recruitlive HR Module Implementation**

Recruitlive HR module was implemented with the consideration of handling Attendance, Leave Process. Later it has been extended to handle Performance review process as well.

- System Design, System Development and Unit Testing
- HTML, CSS, ASP.NET MVC, JavaScript, JQUERY, .NET 4.0, C#, LINQ, EF

### **Recruitlive Website Development, Auto Signup and Integration with Paypal (e-commerce)**

To sale the Recruitlive product, Online shopping of Recruitlive versions is needed and payment has to be received online for which Paypal services are integrated. Demo requests have to fulfill automatically without any manual overhead.

- System Design, System Development and Unit Testing
- Wordpress, HTML, CSS, ASP.NET MVC, JavaScript, JQUERY, .NET 4.0, C#, LINQ, EF

### **Recruitlive Integration with Seek.com.au, LinkedIn, Indeed and JobServe Job boards**

Recruitlive has been integrated with Job boards.

- Software Developer
- .NET 4.0, C#, LINQ, EF, Web services, XML, API.

## **Weatherford Pty Ltd, North Ryde, NSW, Australia (NYSE: WFT)**

Weatherford is one of the largest international oil and natural gas service companies. The company provides products and services for drilling, evaluation, completion, production and intervention of oil and natural gas wells, along with pipeline construction.

Software Architect/Senior .Net Developer (Silverlight)

Sep 2007 – Aug 2009

---

Weatherford provides highly reliable **real-time** drilling information and document management services that shorten project team response times. Bondi is the new name for Weatherford's tried and tested real-time data visualization solution.

Bondi is a full functionality real-time system providing secure access to LWD, MWD, Mud Logging, Wireline and well testing data via the Internet. Using the convenience of the World Wide Web Bondi provides anytime, anywhere access to real-time surface and down hole sensor data via a range of fully customizable consoles and log formats.

Weatherford has decided to convert their legacy system into the latest technology.

### **Contributions:**

- Worked as Senior Developer and Software Architect.
- Architectural design of the VISADMIN product for Oil Industry
- Working with four team members and leading the project in Silverlight 3.0 technologies with MVVM, .Net 3.5, C# 3.0, WCF-RIA.
- Idea man for SCRUM process model that was adopted by the management.
- Development, Designing, Peer Review and Documentation
- RSA security integration for user identification & authentication.

Helping decision makers to decide the best technical solutions to be chosen on the basis of comparison chat.

- Logical Architecture designing of the entire project.
- Using unified modeling language while communicating with the team on components.
- Coding, Code review, Unit testing.
- Documentation on business requirements through UML (Use cases); additional responsibility was added because of the non-existence of the Business Analyst.
- Consultative/Architecture Leadership for the team across multiple countries and states.

## **Recruitlive Pty Ltd, Sydney, Australia (<http://www.recruitlive.com.au/> )**

Senior Analyst Programmer/Senior Consultant

May 2006 – Feb 2008

---

### **Contributions:**

- To provide third level support on various software products - such as RecruitLive, Timesheet Live, Applicant Management System, Advertisement Agents and Microsoft Navision.
- Participate on end-user training sessions and responsible to provide technical solution.
- Identify and champion new technologies suitable for use within Wrap.
- Lead module and practice development processes following agile principles in a team of 10, including onshore and offshore developers, business analysts, testers and contractors

- Project includes: ITCRA SkillsMatch Adapter, LinkMe Adapter, Seek Counter – Enhancement

## **FTI Solutions SDN BHD (Recruit live), Kuala Lumpur, Malaysia**

Analyst Programmer

Jan 2005 – Feb 2006

---

### **Contributions:**

- RL.Net Framework Design and Development
- Analysis and development over Microsoft Enterprise Library 2006
- Implementation of generic database communication component in .Net 2.0 framework. It supports different databases, mainly focusing on MSSQL and MySQL.
- RL2.Net Module BO and DAL - Working in implementing Business objects for the Recruitlive system and to communicate with the database through Data Access Layer (DAL)
- RL2.Net Web Service

## **SPG Solutions Pty. Ltd. (Recruit live), New Delhi, India**

Software Engineer

May 2004 – Dec 2004

---

### **Classic Recruit live (Support and Enhancement)**

#### **Contributions:**

- Software support in ASP, Java, Java Script, VBScript, Visual Basic, MS SQL 2000.
- Implementation of triggers, stored procedures, functions in MSSQL 2000
- Implementation of various major and minor software development
- Report module implementation and delivery; includes custom build report writer.
- Recruitlive Mail .Net - Implementation was done in for C# 1.0, Window services, Web Service, Threading, UML, MSSQL SERVER 2000
- Application Management System (AMS) - Implementation was done in C# 1.0, Reflection, Web Service, UML, and Microsoft SQL SERVER 2000