

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Mark Simpson
Nationality: British
Area of Residence: Doncaster

Employment Type: Contractor
Serving Area: All of UK
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CV Version: Spring 2020 v3



I offer my clients contracting services as a senior developer and Microsoft Certified Professional drawing upon thirty years' experience creating Windows-based software, web applications and mobile apps. I have a full driving license, my own transport and am a member of the Institute of Advanced Motorists. The latest version of this CV and live availability details are available at <https://markcv.com>

SKILL SUMMARY

Microsoft Developer Skills



Technology	Exposure Level	Period
C#.NET+VB.NET (.NET 1-4.8, .NET Core 1-3.1)	Senior analyst developer using WCF, WPF, WF, EF, LINQ	18 Years
ASP.NET Web Forms/MVC/Web API	Senior analyst developer using ASP.NET	18 Years
ASP.NET Core MVC/Razor/Blazor	Senior analyst developer using cross-platform ASP.NET Core	2 Years
Visual Studio 4-6/2003-2019	Senior analyst developer using Agile, Scum or CMMI	18 Years
SQL Server 2000-2019	T-SQL developer, including SSAS, SSIS, SSRS and PowerBI	18 Years
Dynamics 365 CE and CRM 4/2011/13/15/16	Full customisation including Power Apps, plugins, workflows	10 Years
Dynamics 365 for Finance and Operations	Data migration using KingswaySoft Dynamics AX Connector	1 Year
SharePoint Server 2/3, 2007/2010/2013	Senior analyst developer, SharePoint consultant	9 Years
Team Foundation Server and Azure DevOps	Installation and customisation, including TFS Power Tools	14 Years
Azure Cloud Services	Senior analyst developer	2 Years
MS Office 97-2016/365 VBA Developer	Senior analyst developer of MS Access/Excel-based apps	14 Years
Visual Basic 6	Analyst developer using WinForms, Classic ASP, ActiveX	12 Years
MS Project Pro and Project Server	Team leader	6 Years
Windows Server 2000/2008/2012/2019	System admin + custom Active Directory integration	14 Years
Microsoft Exchange Server 2007-2013	System admin + integration with Exchange Web Services	7 Years

Non-Microsoft Developer Skills



Technology	Exposure Level	Period
HTML5, CSS3, Bootstrap 3-4	Senior analyst developer	22 Years
JavaScript ES5/ES6, TypeScript	Senior analyst developer	22 Years
jQuery, Angular, Knockout, Node.js	Senior analyst developer	8 Years
XML, XSLT, XPATH	Senior analyst developer using .NET and PHP libraries	16 Years
PHP 5.x-7.x	Senior analyst developer using Eclipse or VS Code	12 Years
MySQL 3-8, MariaDB, Galera Cluster, Percona	Senior developer, DB admin and performance optimisation	22 Years
Amazon Web Services	Senior analyst developer using EC2, S3, RDS and Glacier	3 Years
Symphony 4, Twig 2, Zend, Smarty	MVC and template engines for PHP development	3 Years
Perl 5	Senior analyst developer	14 Years
Java J2SE and BlackBerry J2ME	Senior analyst developer using Eclipse	4 Years
Android	Full project lifecycle experience using SDK's 1.5 to 2.1	3 Years
Flash and ActionScript	Senior Analyst developer	3 Years
Symbian C++	Developing software for handheld devices and phones	2 Years
Drupal 6-8, WordPress 4/5, Joomla, Umbraco	Deployment, customisation and custom module development	4 Years
Crystal Reports	Report developer + Crystal Enterprise web integration	3 Years
Pick, Universe, UniData, SB+	Senior analyst developer	16 Years

Other Skills



Technology	Exposure Level	Period
TDD, Agile Scrum, CMMI Methodologies	Senior analyst developer, scrum master and team leader	12 Years
API Integration	Third-party API integration such as Google, PayPal, Twitter	12 Years
Documentation	Authoring of system specifications and API documentation	12 Years
UNIX, Linux	System administrator for Fedora, CentOS, Ubuntu, Debian	22 Years
Virtualisation	Deployment and maintenance of Hyper-V, VMware, VirtualBox	16 Years
User Support, Diagnosis, Training	In person or via remote desktop, VNC or Citrix Assist	18 Years
Customer/User Liaison, Project Workshops	Negotiating specifications and writing development plans	18 Years

PROFESSIONAL QUALIFICATIONS

I augment my commercial experience by studying for the latest certification exams and I currently hold the following professional competencies:



AZ-900 Microsoft Certified:
Azure Fundamentals



MB-900 Microsoft Certified:
Dynamics 365 Fundamentals



MB-200 Microsoft Dynamics 365
Customer Engagement Core

SKILL DETAILS

.NET Development - Windows

I have been a successful Windows Forms developer since the mid-1990s using classic **Visual Basic** (4, 5 and 6) before migrating to **VB.NET**, **C#**, the **.NET Framework** (1.1, 2.0, 3.5, 4.0, 4.5, 4.6, 4.7, 4.8) and **.NET Core** (1.0, 1.1, 2.0, 3.0, 3.1).

I have used all versions of **Visual Studio** released to date as well as maintaining extensive knowledge of **Azure DevOps** and **Microsoft Team Foundation Server** including installing, customising, development project setup and work-item tracking in Agile, Scrum and CMMI environments. For source control, I am happy to use whatever the client prefers such as TFS, **Visual SourceSafe**, **SVN** or **Git**.

I have undertaken three **WPF** contracts to date creating cutting-edge applications that I further enhanced through the use of third-party (Telerik, Infragistics, etc) WPF controls such as an extended Office Ribbon, an enhanced data grid and various SQL Server Reporting Services controls. In addition to two years' experience working with WPF, I have used **WCF** and **Workflow Foundation** technologies in both Windows and web-based applications since their initial release in **.NET 3.0**. I have implemented **WCF** on both IIS and Windows Activation Services on **Windows Server 2008** and used it to communicate with platforms such as WPF clients, **Microsoft Dynamics CRM** installations, **Windows Mobile** clients as well as with non-Microsoft technologies.

Formal object orientated coding to SOLID principles, dependency injection using **Unity**, **Ninject** or **Castle Windsor**, and unit testing using either the tools provided in **Visual Studio Team Test** or **NUnit** coupled with familiarity with Microsoft's **Enterprise Library** and Rocky Lhotka's **CSLA.NET Framework** further enhances my .NET developer skills.

.NET Development - Web

For web-based applications, I first began using Microsoft development technologies in 2000 by way of their **Classic ASP** offering. By around 2005, I was developing web-based applications using **ASP.NET Web Forms** and its ever-expanding list of web controls.

My modern-day ASP.NET projects now use Microsoft's **ASP.NET MVC Framework 4/5/6** using the **Razor** view engine, the **ASP.NET Web API** framework, along with a number of third-party server and client-based libraries to increase development speed such as the **Kendo UI** control collection, **jQuery** and **Bootstrap** versions 3 and 4. I have also ten months commercial experience working on a project using **ASP.NET Core 1.1 and 2.0** with **Entity Framework Core** for the backend services and either **Blazor** or **Angular** versions 2 and later for the frontend SPA user interface.

.NET Development - Data Access

It has been a long but interesting journey keeping both informed and up-to-speed with Microsoft's various data-access strategies over the last few decades. My experience stretches from the **ODBC** connections of twenty years ago and **DAO** for VBA Office applications, through to **ADO.NET**, **LINQ to SQL** (and the other flavours of LINQ), and watching the **Entity Framework** grow into a stunning toolset. As a code-writer, I find the latest EF advancements with regards to Code First, POCO classes and particularly Code First Migrations make the previously arduous task of data persistence far more efficient.

Although **SQL Server** is the most common client requirement for .NET-based projects, I have always written applications under a 3-tier or n-tier architecture thus separating the database logic from the rest of the application. When creating a project where a third-party database vendor is being used, I will usually use the **DbLinq** library to provide **LINQ** support for other databases such as **MySQL**, **Oracle** and **PostgreSQL**.

Microsoft SQL Server

For the data layer of a .NET enterprise application I will normally use either the Entity Framework or drop back to T-SQL, stored procedures, views, user-defined functions and triggers using either SQL Server Management Studio or Visual Studio database projects. I also provide consultancy services for the installation/maintenance/disaster-recovery of **SQL Server 2005/2008/2008R2/2012** including load-balancing and replication. Any initial data migration imports and/or data transformation exercises are something I can quickly undertake using either **SQL Server Integration Services** or by creating a purpose-built custom console application if necessary.

This data structure will then be expanded through the use of **SQL Server Analysis Services** OLAP cubes or made available to end users by designing and publishing both text and chart-based reports using **SQL Server Reporting Services** or **Power BI** reports and dashboards.

For smaller self-contained projects, I would look to use either **SQL Server Express Edition** or **SQL Server Compact Edition**.

Microsoft Dynamics 365

I am a Microsoft Certified Professional for **Dynamics 365** working on fourteen such projects over the last decade with experience extending from the latest **Microsoft Power Platform** components all the way back to **Dynamics CRM 4.0/2011/2013/2015/2016**. Priding myself on being a full Dynamics 365 developer I can create complete managed solutions from start to finish using the **Dynamics 365 Common Data Service** to create custom entities, relationship mapping, entity views, custom forms with associated **JavaScript** field events, business rules, classic workflows, dashboards, custom IFRAME content, **C#** plugins, both model-driven and canvas **Power Apps**, as well as handling integration with **Azure services**, **Microsoft Flow**, **PowerBI** and **Dynamics 365 Portals**.

I have made great use of several third-party products throughout my various Dynamics contracts such as **Adxstudio** to provide external portal-style access to CRM systems - a common requirement for council projects I have worked on. **DocumentsCorePack** is popular with several of my clients for automated client and server-based document generation. **KingswaySoft SSIS Integration Toolkit** and **Scribe** are my preferred choices for both simple data import/export tasks or more complex full data-integration projects.

Microsoft SharePoint Server

I have undertaken new **SharePoint** deployments as either single-server, multi-server farms or as **Azure**-hosted cloud-based installations. My development duties then included creating custom document types, sequential/flowchart/state-machine workflows, service entities and web parts including **ASP.NET AJAX** web parts.

On more complex SharePoint installations, I have programmatically interacted with the SharePoint Object Model as well as customizing administration and configuration of a deployment using the SharePoint Administrative Object Model.

Microsoft Exchange

I have successfully deployed new installations of **Microsoft Exchange Server 2007, 2010** and **2013** with appropriate configuration of Edge Transport services, Unified Messaging architecture, Outlook client access and Outlook Web Access. Once the platform has been deployed, I can provide custom managed code that accesses Exchange resources (e.g. messages, appointments, contacts) and responds to events via the Exchange 2007/2010/2013 Web Services API using either the EWS Managed API or raw SOAP messages sent directly to the Exchange.asmx web service.

HTML and JavaScript

I have been creating hand-coded HTML since 1996 using CSS-based layouts as well as maintaining high levels of accessibility and cross-browser compatibility. My current HTML generation techniques adhere to the latest responsive design methodologies by making full use of **HTML5** and **CSS3** to display fluid content across all manner of displays and devices.

I have been authoring **JavaScript** code throughout that same period, and regardless of whether I am working in an ASP.NET or PHP environment, with tight deadlines to meet I am keen to defer as much of the scripting development work to pre-written libraries and frameworks as possible. These include **jQuery** or **Prototype** for DOM manipulation, **Modernizr** for HTML5/CSS3 feature detection, and **Angular 2** and later, **Knockout** or **Scriptaculous** for UI interface work to name just a few.

PHP

I personally build both **PHP** and the **Apache** web-server directly from source, enabling only the modules that are specifically required in order to reduce the attack surface area. For Apache, I implement and use the CGI, SSL, caching and mod rewrite libraries and to aid my development work I compile PHP with optional modules such as DOM support for XML and XSLT transformations, GD extensions for image manipulation, and mcrypt to provide encryption functionality using proven cryptographic ciphers.

The projects I have taken part in that involved open-source tools then built upon these proven LAMP technologies in such ways as extending **WordPress** and **Drupal** with custom modules and themes or are built as complete standalone MVC applications using the **Symphony 4** framework and the **Twig** templating engine. Earlier PHP projects were built using the **Zend** application framework along with **Smarty**-based templates and the countless ready-made and reusable components provided in the PHP PEAR repository.

MySQL

I offer expert-level knowledge dealing with installation, performance optimisation, load-balancing and replication issues. I usually install and configure the latest version of **phpMyAdmin** and the **MySql Workbench** as part of any **MySQL** or **MariaDB** installation.

My developer skills extend to all areas of this platform such as the installation of the appropriate client libraries for the IDE in use, master-to-slave and master-to-master replication, the MyISAM and InnoDB table formats, as well as the relatively recent additions to the product such as stored procedures, triggers, table partitioning and distributing data across several servers using **Galera Cluster**.

Java

My exposure to **Java** began in the late 1990s with the creation of client-side java applets running in a web-browser before progressing to full rich-client applications running on the **Java J2SE**, **BlackBerry J2ME** and **Android** platforms.

Third-Party APIs

As a particular speciality, I provide combined consultancy and developer skills integrating existing ad-hoc solutions with third-party products including applications such as **BIND**, **Crystal Enterprise**, **Drupal**, **Joomla**, **OpenLDAP**, **OpenSSL**, **OpenVPN**, **Postfix**, **SpamAssassin**, **Twitter** and **WordPress**, as well as the **Google Calendar**, **Google AdSense**, **Google AdWords**, **Google Checkout** and **PayPal** e-commerce SOAP and REST API's.

NOTABLE PROJECTS

Dynamics 365 for Customer Engagement Project

Technologies: **Dynamics 365 for Customer Engagement, SQL Server Integration and Reporting Services, Power BI, Visual Studio Online/Azure DevOps, Azure Services, Sage 50 Accounts, HTML5, CSS, JavaScript**
Period: **Eight-month contract commenced December 2017.**

Three of my Dynamics roles have been what I call "emergency placements", clients who have run out of patience with the Gold Partner that they had entrusted their project to - self-proclaimed experts who had promised the world but, to the dismay of the client, had actually failed to deliver even a basic, fit-for-purpose Dynamics-365-based system. In desperation, the client has terminated their agreement with that Gold Partner, evicted their representatives from their premises, and now urgently needs someone else to come in, often as quickly as the next working day, tasked with rescuing their now critically damaged and close-to-collapse project. My fourteenth and most recent Dynamics 365 for Customer Engagement assignment was another one of these such situations.

Always sympathetic to the client's precarious and vulnerable position in these circumstances, I come into these types of projects every bit as committed and determined as even their own members of staff - someone who is on their side and, unlike the previous partner, is always working exclusively for them. To the frustrated and discouraged project stakeholders, it quickly becomes apparent that I am someone who is not "on commission" but rather a highly skilled, technical professional who just wants to get the job done in the shortest amount of time possible instead of wasting the client's precious time arguing about what is in or out of scope and forever trying to identify "billable extras not included in the original tender" for their own financial advantage. While I am on site, I am there to do whatever the client needs, regardless of what the original project plan or job specification might have said. This no-nonsense "can do" attitude has always been extremely well received and comes as a breath of fresh air for clients unfortunate enough to be in this type of situation given what they have experienced up until that point.

This particular client was an IT value-added reseller in Leeds who desperately wanted to harness as much power of Dynamics 365 for Customer Engagement as possible to control, track, manage and reduce the administrative burden of running their multi-million-pound, highly competitive sales operation. This included everything from initial lead qualification and prospect management, automated quotation document preparation with full revision control, through to handling the complete ordering process with credit checking and accurate final invoice and credit note production.

Calculated and rollup fields were defined to separately measure both in-progress and actual KPIs for monthly and annual personalised goal targets for their entire sales staff. These calculations then had to be adjusted still further - for example, a sales order might be shipped, completed and successfully closed, but it may have included a 90-day trial clause. If their customer chose not to continue after their trial period had ended, KPI's for previous months had to be retrospectively and automatically modified to reflect this.

My ideal approach, much appreciated by this client in Leeds, isn't just to implement the key requirements of a project in isolation but rather to impart as much of my Dynamics 365 product knowledge as possible so that the client's own IT staff can implement complex functionality such as goal metrics, charts, dashboards and Power BI reports themselves. I extend this mindset still further by always making sure that as much out-of-the-box Dynamics 365 and Power Platform functionality is used as possible over completely customised approaches which should be used sparingly and only as a last resort. I always feel that this is a much better long-term solution for the client as it allows them to maintain and adjust their own system without requiring external help again in the future.

Migrating historical data from their previous CRM systems, integrating Dynamics CE with multiple separate accounting systems, downloading constantly updated product and pricing catalogues from their multiple suppliers and automatically importing that data into the Dynamics product management entities were critical deliverables for this client - all reasonably straight-forward tasks that the client had originally approached the Gold Partner to deliver but, for whatever reason, were simply unable to achieve themselves.

Angular and ASP.NET Core MVC Azure-Based Building Construction Calculator

Technologies: **C#, ASP.NET MVC Core 1.1 and 2.0, Visual Studio 2017, Angular 2 and 4, TypeScript, JavaScript, jQuery, Bootstrap, Xamarin, Visual Studio Online, Microsoft Azure Cloud Services, SharePoint Online**
Period: **Ten-month contract commenced August 2016.**

Without a doubt my most favourite assignment to date - a greenfield project using technologies that I love to build a stunning, enterprise-level, cutting-edge Angular application with an ASP.NET Core MVC Web API back-end, all hosted on Microsoft Azure Cloud Services.

One of the most challenging aspects of this project was being tasked with delivering UI experiences and functionality not normally found within a web-browser-based application. This included fast and efficient Excel-like row/column grid data entry along with Visio-style document editing such as mouse-wheel zoom support and drag-and-drop line drawing for measuring and annotating building architecture plans. This functionality was implemented using standard HTML5 techniques and designed to work with all desktop browsers as well as all sizes of mobile devices. A collection of asynchronous back-end services was responsible for tasks such as converting user-uploaded, multi-page PDF and AutoCAD documents into bitmap images.

The project made use of a number of different Azure Cloud Services to run the application. Application data was stored in both Azure SQL Services and Azure Blob Storage, web hosting was provided by Azure App Services and the rest of the back-end infrastructure ran as either simple Azure worker roles or as part of a highly scalable Service Fabric Cluster. The project was coordinated and carefully managed using Visual Studio Online, SharePoint Online, Yammer and Microsoft Teams.

This role was also my first Xamarin Forms project as I was tasked with creating native iOS and Android tablet applications to be used remotely on construction sites. This additional functionality had to be provided as native apps rather than web-based as the application had to work offline and also communicate and capture readings from precision measuring devices via Bluetooth.

Dynamics CRM 2015 Project

Technologies: **Dynamics CRM 2013/2015/2016 On-Premise, Dynamics Marketing, SharePoint 2013 On-Premise, SQL Server 2012 Reporting Services, Microsoft Azure Cloud Services, Visual Studio 2015, ASP.NET MVC 5.0, Unity, Windows Server 2012R2, Team Foundation Server 2012**

Period: Fourteen-month contract commenced January 2015.

With Microsoft Dynamics CRM continuing to be my top skillset in greatest demand, one of my longest assignments was with an insurance company in Yorkshire who had recently commissioned a new software project that was to be based upon Dynamics CRM and hosted entirely in Microsoft Azure, the aim of which was to handle and control all types of interactions with their customers, trading partners and suppliers. Unusually, the client had recently lost their small team of developers and needed someone to come on board immediately and hit the ground running such that the momentum built up during the early stages of this crucial software implementation was maintained.

I therefore immediately became the sole CRM expert for this client, in what was to be an enjoyable role that lasted for well over a year, during which time I carefully advised them on how best to implement their operational requirements within the Dynamics CRM environment. Adopting an agile approach to this entire assignment, these end-user-facing requirements gathering exercises took place in the same time frame as developing and delivering CRM customisations for other departments within the company.

The client made great use of the CRM activity tracking and case management functionality throughout their entire company and their CRM system grew to become fully integrated with their other back-office systems that controlled such mission critical operations as finance and B2B data transfers. The company also chose to implement the new Microsoft Dynamics Marketing product and I was tasked with the additional duties of deploying that environment and configuring it such that it synchronised customer data correctly with their existing Dynamics CRM system.

As is often the case, the requirements of this client sometimes went beyond what Dynamics CRM could deliver, even with its extensive, adaptable and varied customisation options. For instance, in one example, they wanted each of their users to be alerted immediately as soon as a task was assigned to them, but without involving unnecessary email notifications - after all, a substantial reduction in emails was one of the primary goals of their CRM project in the first place. As a fully experienced .NET developer, I implemented a C# Windows Forms application to provide a visual indication in the Windows system tray whenever something in CRM required the attention or acknowledgement of a particular user. Additionally, I also created an ASP.NET MVC5 based web portal that was used to present CRM data in complex, colour-coded formats, not normally possible using Dynamics CRM's own standard view renderer.

As with the role immediately previous to this one, I felt it was my professional duty to make sure that the client was left in a much stronger position upon the completion of my contract by making sure that any required skillsets were documented and passed on to their newly acquired replacement permanent members of staff. I trained those people in all functionality provided by the latest updates to Dynamics CRM such as creating synchronous and asynchronous workflows, Business Rules, Business Process Flows, Enhanced Service Level Agreements, Entitlements and Entitlement Templates, as well as Dialogs and Actions.

Finally, to store, and index in an easily searchable format, all of the extensive documentation that I had authored and prepared throughout my tenure there, I installed and introduced the company to Microsoft SharePoint Server 2013. This SharePoint environment was then integrated with CRM itself to provide document management control for CRM records. Documents uploaded into CRM were categorised using SharePoint document types and custom metadata fields. Custom SharePoint 2013 workflows were also created which updated CRM such as advancing a Business Process Flow stage when a document of a particular type was uploaded and approved.

Dynamics CRM 2013 Project

Technologies: **Dynamics CRM 2013 On-Premise, SharePoint 2013 On-Premise, Visual Studio 2013, ASP.NET MVC 5.0, Windows Server 2012 + ADFS, Team Foundation Server 2013, Unity, Microsoft Fakes Framework**

Period: Eight-month contract commenced December 2017

For four months I worked for a software house in Surrey who specialise in all of Microsoft's enterprise products but had only minimal experience with CRM. Taking this into account, I was able to make not only a number of recommendations but also implement a set of best practices into the way the company worked with Dynamics CRM customisations. I was also called upon to introduce them to the various pieces of new functionality in Dynamics CRM 2013 such as Business Process Flows and real-time workflows.

The company's own client also had extensive mail-merging requirements that extended beyond the capabilities of the functionality built into CRM. In just a few days I was able to deploy a third-party extension that integrated CRM with Microsoft Word directly.

SharePoint Server 2013 customisations were also included in this Internet Facing Deployment (IFD) project and therefore the solution made use of Active Directory Federation Services to control access across all systems using claims-based authentication. Furthermore, members of the public could create new case records themselves using a publicly accessible "web portal" written in ASP.NET MVC 5.0. Development was coordinated within an agile methodology environment through the use of a product backlog with the team's effort being split across a number of fixed-length sprints. Daily scrum meeting took place using Microsoft Lync.

Online Quotation and Bidding Project

Technologies: **C# 2012, ASP.NET MVC 4.5, Entity Framework 5.0, SQL Server 2012, Team Foundation Server 2012, Telerik Kendo UI, Ninject, Moq**

Period: Thirteen-month contract commenced July 2012

Happily returning for a further assignment with a previous client who now required an additional new application developing that would be used to coordinate their multi-million-pound bids and quotations within the construction industry. A large multi-national organisation, it was required that this new application be multi-lingual, accessible world-wide, be keyboard-friendly to permit large amounts of data-entry, require minimal support and have a fresh, modern and beautiful design.

Indeed, this project came along at the ideal time - the quickly evolving ASP.NET MVC Framework was now at version 4.5 and I was keen to take advantage of the impressive Razor view engine and its already familiar syntax. Additionally, HTML5 which for so long had just been a buzzword and a non-ratified standard that was poorly supported by the browsers had also matured and this contract afforded me the perfect opportunity to formally embrace this new technology. The client already had sufficient confidence in my proven abilities to permit me a "free-reign" approach to development and allow me to carefully select and implement the very best industry practices for the development process.

The MVC approach to software development lends itself very well to adopting and benefiting from further methodologies. For example, I implemented Dependency Injection methodology across the entire application so as to remove the complexity of tight coupling between the various software components, by using the tool favoured by most in the .NET community - Ninject. Unit testing was easily accomplished using Visual Studio test projects and the associated mocking of test objects was achieved by using the mocking framework "Moq" from the Nuget package management repository.

All data for this project was stored in Microsoft SQL Server 2012 and accessed through Entity Framework 5.0 Code First data modelling. The extensive business intelligence reporting requirements for this project were fulfilled by integrating with SQL Server 2012 Reporting Services. Data would be retrieved in JSON format via jQuery's built-in Ajax support that then became data sources for the various widgets provided by the HTML5-compatible Telerik Kendo UI library which greatly accelerated development by providing out-of-the-box functionality for sortable grids, calendar controls, menus and tree view controls etc.

As well as developing the application, my responsibilities also included hardware provisioning, installation, and hosting of this online application. Entity Framework's new Code First Migrations tool greatly alleviated the chore of updating the database schema as the application grew.

Dynamics CRM 2011 Online Project

Technologies: **Dynamics CRM 2011 Online + On-Premise, SharePoint 2010, Visual Studio 2010 Team Foundation Server**

Period: Six-month contract commenced July 2011.

For the implementation of a new enquiry and case handling system one of the UK's Health Regulatory Authorities implemented a customised CRM solution using Microsoft's cloud-based Dynamics CRM 2011 Online along with an on-premise install of SharePoint 2010 for document management control.

Despite being first and foremost a software developer, in the small team of just six people I was happy to take on additional project management duties in what was to be a very customer-facing role. I hosted several user workshops with subject matter experts at the client's prestigious London offices to demonstrate out-of-the-box functionality of CRM 2011, discuss in detail what customisation options were available to them and then gather user requirements and subsequent feedback.

The project was controlled and documented throughout using the **SureStep** full lifecycle methodology designed by Microsoft specifically for dealing with the Dynamics business solutions portfolio.

Microsoft Dynamics CRM ISVs

Technologies: **C# 2008/2010, ASP.NET 3.5/4.0, LINQ, WCF, WPF and WF, jQuery, SharePoint 2007, Microsoft Dynamics CRM 4.0, SQL Server 2005/8 with SSIS and SSRS, Visual Studio 2010 Team Foundation Server**

Period: Two contracts totalling one year commenced April 2010.

Working for both the UK's first and second largest Dynamics CRM ISVs, I have played active roles on multiple projects that used a test-driven development approach. These software vendors also applied the modern Scrum methodology to control their many projects and I gained valuable experience taking part in sprint planning meetings, scoring user stories, daily scrums and sprint retrospectives before taking on the role of scrum master myself and implementing Agile and Scrum environments within organisations that had never used it before.

These ISVs have a varied range of clients that included the City investment banking industry, local councils and higher education institutions and have built up a wide portfolio of software products. All of these projects benefitted from common company libraries of JavaScript routines, .NET 3.5 helper classes and HTTP modules.

As well as the usual Dynamics CRM custom entities, plugins and workflows, these companies also provide WPF-based applications that communicate with the standard CRM web services to provide data-entry functionality in situations where the usual web-based CRM form input is deemed not to be efficient enough.

Multi-Platform Call Screening Software and E-Commerce Web Site

Technologies: **C# 2008, ASP.NET 3.5, WinForms, LINQ, WCF, WPF and WF, .NET 3.5 Compact, SQL Server 2008 with SSAS and SSRS, SQL Server 2008 Embedded Edition, Visual Studio 2008 Team Foundation Server, SharePoint 2007, Java J2ME, Android, Symbian C++**
Period: Two-year contract commenced December 2008.

Full life-cycle experience allowed me to successfully deliver projects across multiple hardware platforms including Windows desktop software using WPF technologies in .NET 3.5, Windows Mobile software using Windows forms technology in .NET Compact Framework 3.5 SP1 and an ASP.NET 3.5+AJAX e-commerce web-portal all integrated via XML web-services and WCF.

Given that this software suite is available for use by the general public, each product was independently assessed and passed the appropriate compliance standards testing such as the "Certified for Windows", "Designed For Windows Mobile", and "Symbian Signed" certification programmes.

Social Web Site for Sports Enthusiasts

Technologies: **PHP5, MySQL, Zend Framework, Smarty, Prototype, Scriptaculous, Rails, AJAX, XML**
Period: Four-month contract commenced February 2008.

I was quickly able to join a new design studio that had just won their largest job to date and urgently needed professional assistance from someone with full project lifecycle experience. Quite literally starting from nothing, I provisioned, installed and maintained the new development machines, sourced and liaised with various managed web-hosting providers who had the bandwidth and guaranteed up-time necessary for such a high-traffic public web portal, and led the team of three to successfully complete the project on time and within budget.

This high-profile project was built on RedHat Enterprise Linux and written using PHP and the Zend MVC framework with the site content being maintained through extensive use of the Smarty templating engine. By consistently integrating the entire web-site with the Prototype and Scriptaculous JavaScript libraries users are presented with a modern and easy-to-use AJAX-based experience regardless of personal browser preference. Web-services were used to communicate with third-party data providers such as for the delivery of both text and imagery in the form of real-time match fixtures, half-time and full-time scores and sporting news feeds.

Intranet-Based Vehicle Control System

Technologies: **C# 2005, ASP.NET 2.0+AJAX Extensions, AJAX Control Toolkit, IIS 6**
Period: Eight-month contract commenced April 2007.

I was contracted to join an existing team in order to bring the development of a late-running internal vehicle movement control system back on schedule. A replacement for an aging character-based system, this intranet project was built using ASP.NET 2.0, C# 2005 and IIS 6 while communicating with a back-end legacy database via web services. I was particularly proud of overseeing the successful conversion of this web application into a full cross-browser compatible system that made extensive use of AJAX-based technologies to deliver a modern browser-based front-end to users at their various branches throughout the country.

As the company's primary access to a .NET professional for more than half a year, a particularly enjoyable part of this role also involved training their development team in modern Microsoft technologies such that the company had sufficient in-house knowledge to both maintain and extend this application in the future.

Industrial Fire Protection Calculator

Technologies: **2006: VB.NET 2005, Visual Basic 6, VBA, OLE DB, SQL Server 2005, IIS 6**
2020: VB.NET 4.8, C# 8.0, ASP.NET Core 3.1, Blazor, Entity Framework 6.0, Entity Framework Core
Period: Originally an eighteen-month contract commenced February 2006.

Working as the sole-developer on this contract, I was singularly responsible for completing all aspects of the specification, development and documenting of this application, both to the originally agreed specification as well as incorporating any last-minute change requests.

This client is a world leader in the supply of industrial intumescent paint systems that are used as a method of fire protection for structural steelwork in modern buildings. Written using Visual Studio 2005 and SQL Server Embedded Edition, the software application I produced creates accurate quotations based upon calculations and timings it undertakes for each individual steel beam used to construct a new building. This became a multi-million-pound division of the client's core business, and as a key component of their strategy to winning new business, the company now distributes this software to their customers throughout the world in markets such as Dubai, India, China as well as Continental Europe.

This particularly successful conclusion for all concerned has led to this role becoming on-going in nature and I am called upon to update and further enhance this software project every year or so to keep track of this ever-changing technology and allow my client to remain at the forefront of their industry. The most recent work on this project in 2020 included upgrading their software application to use the latest .NET Core technologies including Blazor pages and Entity Framework Core.

Web-Based Risk Management

Technologies: **VB.NET, C#.NET, ASP.NET, PHP, OpenInsight, MS SQL**

Period: One year commenced July 2004.

One of my most significant positions to date was that of team leader managing a group of developers working on a clinical/non-clinical incidents, claims, complaints and risk recording system for both the National Health Service and local councils. Accessed through a standard web-browser, the product made the data collected available for reporting and analysis purposes on Microsoft SQL Server platforms and integrated seamlessly with Crystal Enterprise to provide critical management reporting information and root-cause analysis for hospitals and health trusts across the country.

I was also responsible for coordinating the successful expansion of the product to fit the council market allowing them to record, track and analyse incidents of hate crime, fly-tipping and all other aspects of anti-social behaviour. Such recording is now carried out by street-based mobile officers who access the system through handheld PDA's using GPRS and GPS satellite positioning technologies.

Human Resources

Technologies: **VB.NET, C#.NET, Java, UniVerse, MS SQL 2000, PHP**

Period: Four years from April 2001.

In my previous position I was a key player in a team of developers creating a Human Resources and Payroll application. I progressed quickly in this role and report regularly to the company directors on the status of the project. The product consists of Personnel, Recruitment and Training modules and was also linked tightly with the company's own payroll package. Development work included the provision of two user interfaces - initially, a client server model using the 4GL tool SB+, and more recently the application was ported to a web-browser environment using ActiveX and Java-based applets to increase standard browser functionality. Key to the success of this product has been the controlled customisation of the software to comply with the specific needs of each customer, most of whom were large local government offices.

GovTalk e-Government Gateway

Technologies: **VB.NET 1.1, ASP.NET, UniVerse, Perl**

Period: Two years from April 2001.

In addition to those duties, I was also tasked with interfacing both the above mentioned HR project as well as a legacy green-screen payroll product with the UK Government's secure electronic document submission gateway. Using XML formatted data, I wrote three versions of this system to fit in with customer requirements using Visual Basic, Databasic, and Perl. I controlled this project from initial conception through to completion with the successful transfer of thousands of P60's, P11's and other payroll related documents.

Computerised Weighbridges

Technologies: **Pick, Visual Basic 4, Perl**

Period: Eight years from September 1989.

I have installed workstations and printers in five H.G.V. weighbridges for the production of weight tickets. The weighbridges are connected directly to the workstations via a serial link enabling the Pick host to retrieve weight readings automatically. This system had to be designed to comply with the stringent regulations of the Department of Trade and Industry.

The workstations were controlled through a Visual Basic project I completed to allow the Pick host to present a graphical user interface to the end user whilst maintaining compatibility with the character-based terminals already in use. The client supports a number of features including multiple connection sessions, host/DOS file transfer, local printing as well as command button/combo-box/mouse integration into Pick Databasic software.

CONTRACT HISTORY

Main Period	Area	Industry Exposure	Technical Skills Used
Feb 20 - Apr 20	Yorkshire	Consumer Retail	C#, ASP.NET MVC, SQL Server 2016, RabbitMQ
Oct 19 - Jan 20	Lincolnshire	Construction	VB.NET 4.8, C# 8.0, ASP.NET Core 3.1, Blazor, Entity Framework 6.0 and Entity Framework Core
Aug 18 - Jul 19	London	High Tech Equipment Hire	Dynamics 365 for Finance and Operations, KingswaySoft SSIS Integration Toolkit, Azure Services, C# 2017, WPF
Dec 17 - Jul 18	Leeds	IT Value-Added Reseller	Dynamics 365 CE, SSRS/SSIS, Power BI, Azure DevOps, Azure Services, Sage Accounts, HTML5, CSS, JavaScript
Aug 17 - Nov 17	Derby	Textile Design	C#, ASP.NET MVC, WebAPI 2, JavaScript, CSS
May 17 - Jul 17	London	Local Council	Dynamics 365, Dynamics CRM 2011, Visual Studio Online, Azure Services, Umbraco
Aug 16 - May 17	Scotland	Construction	C#, .NET 4.7, .NET Core MVC 1.1 and 2.0, Angular2/4, TypeScript, Azure Services
May 16 - Aug 16	London	ISV serving Local Councils	Dynamics CRM 2016 Online, SharePoint 2013 Online, KingswaySoft SSIS Integration Toolkit
Jan 15 - Apr 16	Harrogate	Insurance	Dynamics CRM 2013-16, ASP.NET MVC 4.6, SQL Server 2012, Dynamics Marketing, SharePoint 2013, Umbraco
Sep 14 - Dec 14	Surrey	ISV serving Local Councils	Dynamics CRM 2013, SharePoint 2013
Aug 13 - Jul 14	London	Government-Backed Community Support Provider	Dynamics CRM 4.0, C# 2012, TFS 2010
Jul 12 - Jul 13	Lincolnshire	Construction	C#2012, ASP.NET MVC 4.5, Entity Framework 5.0, SQL Server 2012
Apr 12 - Jun 12	Chester	Telecoms and IT Services	Dynamics CRM 2011 and 2013 Online, .NET 4.0, C# 2010, WCF
Jan 12 - Mar 12	Cambridge	ISV serving Private Sector	Dynamics CRM 2011 On-Premise, .NET 4.0, C# 2010, WCF, WPF 4.0, Twain Dot Net Library
Jul 11 - Dec 11	Leeds+London	ISV serving Health Industry	Dynamics CRM 2011 Online, SharePoint 2010
Mar 11 - Jun 11	Leicester	High Tech Manufacturing of Laser-Based Systems	C# 2008, ASP.NET 3.5, SQL Server 2008 with SSRS, Third-Party API Integration
Nov 10 - Feb 11	London	ISV for Investment Banking and International Charities	C# 2008/2010, ASP.NET 3.5/4.0, Microsoft Dynamics CRM 4.0, SQL Server 2008 with SSRS, TFS 2010
Apr 10 - Oct 10	Leeds	ISV serving Investment Banking and Local Councils	C# 2008/2010, ASP.NET 3.5/4.0, jQuery, Microsoft Dynamics CRM 4.0, SQL Server 2005/8 with SSIS and SSRS, TFS 2010
Mar 10 - Apr 10	Leeds	Brand Design Agency	C# 2008, Flash, ActionScript, D/HTML, JavaScript, CSS
Jan 10 - Mar 10	Leeds	Gas Utilities	Dynamics CRM 4.0, C# 2008, TFS 2008, .NET Compact 3.5
Jul 09 - Dec 09	Nottingham	Pharmaceutical	.NET 3.5, C# 2008, WPF, WCF, WF
Dec 08 - Jul 09	London	Internet Startup	ASP.NET 3.5, AJAX, jQuery, Dynamics CRM, Dynamics GP, Java J2ME, Android, Symbian C++
Jun 08 - Dec 08	Derby	ISV serving NHS	C# 2008, Flash, ActionScript, D/HTML, JavaScript, CSS, OpenInsight
Feb 08 - Jun 08	Harrogate	Brand Design Agency	PHP5, MySQL, Zend Framework, Smarty, Prototype, Scriptaculous, Rails, AJAX, XML
Apr 07 - Dec 07	Leeds	Vehicle Retail	C# 2005, ASP.NET 2.0+AJAX Extensions, AJAX Control Toolkit, IIS 6
Sep 06 - Apr 07	London	Internet Startup	.NET 2.0, .NET Compact Framework, WinForms, SQL Server 2008, MOSS 2007
Feb 06 - Sep 06	Lincolnshire	Construction	VB.NET 2005, Visual Basic 6, VBA, OLE DB, SQL Server 2005, IIS 6

PERMANENT EMPLOYMENT HISTORY

From September 1989 through until February 2006, I worked in permanent roles, always in software development, in positions ranging from analyst programmer and senior analyst developer through to team leader, for both end-user organisations and software houses.