|  |  |
| --- | --- |
| Andrew Tatham | Visit [IsAndrewTathamAvailable.com](https://isandrewtathamavailable.com/) for my current availability, contact details and latest CV. |

**A contract .NET software developer with 18+ years experience in Microsoft technologies.**

**Extensive TDD/BDD experience. More back-end than front-end.**

**Interested in contract .NET development opportunities based in Leeds or working remotely.**

|  |  |  |  |
| --- | --- | --- | --- |
| Key Skills: | Web: | Roles: | Market Sectors: |
| **\*\*\*\*\* C#.NET****\*\*\*\*\* .NET Framework****\*\*\* .NET Core****\*\*\*\*\* SQL Server****\*\*\*\* Entity Framework****\*\*\*\*\* Agile****\*\*\*\*\* Git****\*\*\*\*\* CI & CD****\*\*\*\*\* TDD & BDD** | \*\*\*\* Web API\*\*\*\* ASP.NET MVC\*\*\*\* HTML\*\*\*\* CSS\*\*\* Bootstrap\*\*\* JavaScript\*\* JQuery\* Angular\*\* Umbraco CMS | * Development
* Cell Lead
* Architecture
* Automated Testing
 | * Consultancy
* Financial, Investment & Retail Banking
* Energy & Commodities Trading
* Logistics
* Translation
* E-Learning
 |
| Automated Testing: | Source Control: | Azure: | AWS: |
| \*\*\*\*\* NUnit\*\*\*\*\* Moq\*\*\*\*\* Selenium\*\*\*\*\* SpecFlow | \*\*\*\*\* Git\*\*\*\*\* Sourcetree | \*\*\*\* App Services\*\*\*\* Functions\*\*\*\* SQL Server\*\*\* DevOps\*\*\* Data Factory | \*\* Route 53 DNS\*\* S3 Storage\* Lambda |
| Paradigms: | Other: | Legacy: | Legend: |
| \*\*\*\*\* OO & SOLID \*\*\*\* Design Patterns\*\*\* Multithreading\*\*\* Functional\*\*\*\* IOC/DI | \*\*\* MacOS\*\*\* Linux\*\*\* Python\* Typescript\* React Native | \*\*\*\* WCF\*\*\*\* Windows Services\*\*\* WPF\*\* Silverlight\*\*\*\* Winforms | \*\*\*\*\* Expert\*\*\*\* Broad knowledge\*\*\* Some experience\*\* >= 1 project \* “Hello World” level |

# Experience Summary:

|  |  |  |  |
| --- | --- | --- | --- |
| **Shell SLMT, London *(working remotely)*** | Azure Developer | *20/07/20 – Present (3 y+)* | *Contract* |
| **The Data Shed, Leeds** | .NET Developer | *06/01/20 – 14/04/20 (3 m)* | *Contract* |
| **Seriously RAD, Leeds** | Developer | *12/08/19 – 27/09/19 (2 m)* | *Contract* |
| **Shelby Finance, Leeds** | Developer | *15/04/19 – 19/07/19 (3 m)* | *Contract* |
| **Seriously RAD, Leeds** | Developer | *02/07/18 – 07/12/18 (5 m)* | *Contract* |
| **Catalyst IT, York *(working remotely)*** | Azure Developer | *19/04/17 – 18/05/18 (1 y 1 m)* | *Contract* |
| **Virtual College, Ilkley** | Application Developer | *21/11/16 - 24/03/17 (4 m)* | *Contract* |
| ***(Gap / Paternity Leave)*** |  | *24/10/15 - 20/11/16 (1 y 1 m)* |  |
| **Provident Financial Group, Bradford** | Application Developer | *13/04/15 - 23/10/15 (6 m)* | *Contract* |
| **BJSS, Leeds/London** | Software Engineer | *17/05/10 - 10/04/15 (4 y 11 m)* | *Permanent* |
| **SDL International, Sheffield** | Developer | *02/11/09 - 01/04/10 (5 m)* | *Permanent* |
| **HBOS, Leeds** | Systems Developer | *19/03/07 - 16/10/09 (2 y 7 m)* | *Permanent* |
| **Skipton Building Society, Skipton** | Senior Technical Assistant | *13/10/03 - 05/01/07 (3 y 4 m)* | *Permanent* |

# Commercial Experience:

## Azure Developer, Shell SLMT, London (Working Remotely)

20th July 2020 to Present (3 years +)

Provided development services to Shell SLMT (Shell LNG Marketing and Trading) working across multiple projects.

### Project: Freight for Future Vessel Performance Dashboard

* Developed **Azure Function App** to extract vessel data from KIMS **OData** API and import into **Databricks**.
* Redesigned existing schema to use ensure proper use of Primary Keys and elimination of duplicate values.
* Backfill of large historical data set (100M records)
* Use **Azure Storage Queues** to manage large request volumes.
* Configured **Azure Devops CI/CD pipelines** to deploy and configure resources using **Terraform.**

### Project: Symphony

* Set up **Azure Data Factory** Pipelines to extract data from Endur Trading System and RADAR then push to Salesforce Cloud. Parquet files written to Azure Data Lake.
* Configured **Azure Devops CI/CD pipelines** to deploy and configure resources using **Terraform.**
* Set up custom build agents using **Docker.**

### Project: Orbital

* Added additional **Azure Data Factory** pipeline steps to copy data to Orbital **Azure SQL Server** database to facilitate risk management and optimisation of LNG deals.

### Project: Fundamentals

* Developed fixes to the Unit of Measure conversion system and set up extensive unit tests.
* Added auditing feature, saving files to **Azure Blob Storage**.

### Project: Offline Models

* Developed **Azure Function App** to move files between SharePoint and Salesforce using **REST APIs**.

## .NET Developer, The Data Shed, Leeds

6th January 2020 to 14th April 2020 (3.5 months)

Provided development services for The Data Shed ([thedatashed.co.uk](https://www.thedatashed.co.uk/)) for a couple of their clients. Working from home during the coronavirus pandemic. For a short-term lending provider:

* Minor fixes and enhancements to their new **React-Native/Typescript** iOS/android app.
* Developed **.NET Core** **Azure Functions**-based backend services.
* Fixed an iOS-only redirect issue in the payment process and removed redundancy.
* Refactored unit tests using builder pattern to reduce redundancy.
* Updated documentation.

For a major UK insurance provider:

* Developed a proof of concept quotation engine based on **.NET Core** **Azure Functions.**
* Helped migrate an existing SOAP webservice to an **Azure Web Application.**
* Provisioned Azure environments using **Terraform.**
* Created a Visual Studio Database Project from an existing database schema.
* Setup **Azure DevOps** build and release pipelines for CI/CD of Infrastructure, database and application services.
* Performed code reviews.

## Developer, Seriously RAD, Leeds

12th August 2019 to 27th September 2019 (1.5 months)

Returned to provide development services for Seriously RAD ([www.seriouslyrad.com](http://www.seriouslyrad.com)) during another period of high workload.

* Developed several minor enhancements and fixes to their **C#.NET** / **Web API** services.
* Maintained and improved their **automated test** suite.

## Developer, Shelby Finance, Leeds

15th April 2019 to 19th July 2019 (3 months)

Shelby Finance acquired CURO Transatlantic (WageDay Advance & Juo Loans) when it went into administration in February. I was contracted to provide development services.

* Continued development of their **ASP.NET MVC / Umbraco** “Dot Dot Loans” website, and **WebApi** “core api”.
* Implemented a .**NET Core 2.2 WebApi** gateway to facilitate a move to a more microservice based architecture.
* Developed extensive **Selenium** automated smoke test suite for “organic” and “lead gen” journeys.
* Features and bug fixes to **ASP.NET MVC** “AppFlo” internal system.
* Developed an **ASP.NET MVC Core / Javascript** loan calculator for both their existing “MVP1” and new “MVP2” products, with **NUnit** and **Specflow** and tests to verify correct behaviour.
* Transferred knowledge from departing development staff to incoming offshore development staff and updated wiki.

## Developer, Seriously RAD, Leeds

2nd July 2018 to 7th December 2018 (5 months)

Provided development services for Seriously RAD ([www.seriouslyrad.com](http://www.seriouslyrad.com)) during a period of high workload.

* Developed several **SQL Server** stored procedures and functions for reporting, and modifications to the reporting **Web API** service. Developed the **Web API** services for the surveys and capex modules.
* Developed a suite of **NUnit** unit and smoke tests to improve **automated testing** of their **Web API** implementation, with some **Selenium** tests to demonstrate a possible UI testing approach.
* Generated a large volume of realistic fake data to facilitate testing.

## Azure Developer, Catalyst IT, York (Working Remotely)

19th April 2017 to 18th May 2018 (1 year 1 month - with occasional support work for a further 6 months)

Design and development of a Logistics API for Catalyst IT, for their client “/BUILT Building Supplies on Demand”, part of Travis Perkins. The project was developed from nothing to production in a 6-week timescale.

* Development of **C#.NET / Web API 2 / Automapper / Entity Framework / SQL Server** solution hosted as a **Microsoft Azure** **application service**, integrated with NetSuite.
* Developed **ASP.NET MVC 5 / Bootstrap / Javascript / JQuery** User interface for testing the API.
* Provided solutions to complex problems, including vehicle packing and delivery route optimization for multiple vehicles using **Google Geolocation / Distance Matrix / Directions APIs**.
* **Behaviour-Driven-Development** and integration tests using **Specflow**.
* **NUnit / MOQ** Unit tests elsewhere.
* Dependency Injection using **Autofac**.
* **Git** source control with **Sourcetree**, **Visual Studio Team Services** Continuous Integration and project management.

Helped with some other projects

* Improved the performance of a SQL OR/LIKE query from 30 to 3 seconds by adding a **full-text-index**.
* Implemented a series of automated system checks using **Selenium** / **Specflow**.

## Application Developer, Virtual College, Ilkley

21st November 2016 to 24th March 2017 (4 months) Contract

Development of features, bug fixes and enhancements to their “Enable” Learning Management System:

* **C#.NET / ASP.NET MVC 4 / Web API 2 / WCF / Entity Framework / SQL Server**
* **Javascript** including **JQuery / Require/ Knockout / Underscore**
* Dependency Injection using **Autofac**
* Notifications delivered via **SignalR**
* Updates to shared libraries published internally via **NuGet**
* Using **EF Migrations** with **Redgate SQL Source Control** used to provide database versioning
* Helped the team with **Git** and adoption of **Sourcetree**
* **TFS**, Pull requests and Code reviews
* Automation of user creation regression tests using **Telerik Test Studio**
* I developed a **Selenium** and **Specflow BDD** project to demonstrate an alternative to Telerik
* Scrum participation including standups, sprint planning, planning poker, technical refinement, and sprint retrospectives

##  (Gap / Paternity Leave)

24th October 2015 to 20th November 2016 (1 year 1 month)

* Investigated new technologies including **ASP.NET Core**, **.NET Core**, **Xamarin**, **Node JS**, **Angular JS**, **React JS**, **Docker**, **Azure**, **Amazon Web Services**.
* Migrated my static personal website to Amazon Web Services (S3 and Route 53).
* Created Umbraco CMS websites on Azure.

## Application Developer, Provident Financial Group, Bradford

13th April 2015 to 23rd October 2015 (6 months) Contract

Fixes and enhancements to a public facing Satsuma loans website (https://www.satsumaloans.co.uk)

* **C#.NET** / **ASP.NET MVC 4** / **Umbraco CMS** with **WCF** backend services
* Implemented new retry functionality for **WorldPay** integration, as requested by the CX team to improve customer dropouts at this stage.
* Added a ‘realtime’ APR calculation to the **Javascript** loan calculators/sliders, replacing a lookup, reducing the page size dramatically. Wrote **Specflow**/**Selenium/MSTest** tests to ensure the values were correct. Discovered and fixed existing decimal precision and rounding errors.
* Developed a **Selenium** based automation tool, allowing developers to easily and quickly drive the user journey for development and testing.
* Investigated and diagnosed issues with the third-party customer behaviour tracking system and suggested fixes to their developers.
* The team were using **TFS** to track work items

## Software Engineer, BJSS, Leeds/London

17th May 2010 to 10th April 2015 (4 years 11 months) Permanent

Worked on several projects including:

### **Project: RAROC** – Architect, Development Lead and Build master

Development of a Risk-Adjusted-Return over Capital (RAROC) Tool, for a European investment bank in London (6 months).

* Lead a team of 4 developers. Responsible for the **architecture** of the server-side components, and the development of **WCF Web Services**, using **C#.NET 4** and **Entity Framework.** These were used by the of **ASP.NET MVC 3** user interface.
* Integration with other .NET/Java services using **WCF** and **ActiveMQ NMS** to retrieve market data.
* Implemented thorough **automated tests** at unit, service and UI levels to ensure complex Basel II & III risk calculations were performed correctly.
* Implemented continuous integration, testing and deployment, using **Hudson/Jenkins**, **SVN**, **NAnt**, **NUnit**, **NCrunch**, and **Selenium.**

### **Project: DASH** – Development Lead and Build Master

Development of an asset management system for distressed assets specialists (DASH), for a European investment bank in London (2 years, 6 months).

* Lead a team of 3 developers. Agile Iteration planning and project management, using **Jira** with **GreenHopper**.
* Development of **WCF** Web Services, using **C#.NET 4.0**, **LINQ to SQL**, **NInject**, **Moq**, Automapper, Crystal Reports, Quartz, Task Parallel Library.
* Development of a **WPF** Client Application using the Cinch **MVVM** framework and the Xceed Data Grid.
* Implemented a stable end-of-day batch process using **Workflow Foundation**, replacing the previous unstable Java process.
* Developed **ASP.NET MVC 2** website for user and system administration.
* Implemented continuous integration, testing and deployment, using **Hudson/Jenkins**, **SVN**, **NAnt**, **NUnit**, **OpenCover**, **NCrunch**, and **Clickonce**.

### **Project: ITAS** – Development Cell Lead, Git SME, Scrum and Build master

Support and enhancements to an Integrated Trading and Accounting System (ITAS) for a global commodities trader. (1 year 3 months)

* Performed a **development cell lead** role for the cotton trading business function, responsible for scrums, estimation, assignment and monitoring of work completed by the cell. The team performed support and enhancements to a **large VB6/VB.NET Winforms codebase** of over 2.5 million lines of code, split into 178 modules.
* Developed a **C#.NET 4**/**WCF** ETL web service, feeding Qlickview BI reporting tool. Developed using **Unity** dependency injection, **NUnit** unit tests, **MOQ** mocking framework, **Opencover** code coverage reports.
* Implemented continuous integration using **TeamCity**, wrote scripts in **PowerShell** to perform “delta” **Maven** builds and store the binaries in a **Sonatype** **Nexus** repository.
* Became the team expert in **Git** source control, with the **Gitflow** branching pattern. Introduced the team to the **Sourcetree** user interface. Responsible for the forking of the single git repository into two separate repositories.
* Investigated **SQL server** collation, and performance issues caused by index fragmentation and implemented other performance improvements.
* Implemented two “information radiator” wallboard displays, showing Jira information and a custom build status display using **Raspberry Pi**’s, **PiGlow**, **Python**, and **JQuery**.
* A champion of the **continuous improvement** (kaizen) process within the team, suggesting and implementing many improvements to the team’s methodology.

## Developer, SDL International, Sheffield

2nd November 2009 to 1st April 2010 (5 months) Permanent

Developed a **Silverlight 3/C#.NET 3.5/WCF/SQL 2008** based user interface for SDL's latest translation memory management product, targeted at enterprise customers.

* Worked in a team of 14 developers to implement the user interface using **Expression Blend 3**, **Visual Studio 2008/2010**, **Team Foundation Server** with Scrum Board add-in.

## Systems Developer, HBOS, Leeds

19th March 2007 to 16th October 2009 (2 years 7 months) Permanent

Developed a **Microsoft Customer Care Framework (CCF) agent desktop application**, as a replacement to the legacy CCAgent application, used by 6000 agents, based at 11 UK contact centres:

* Developing custom hosted controls in **C#.NET 3.5/WCF/SQL 2005** under an **Extreme Programming (XP)/Agile** development methodology over 9 months, as part of a team of up to 12 developers.
* **Test-Driven Development** via **NUnit** and **Fitnesse** automated testing, and continuous integration and automated deployment via **NAnt/Cruise Control**. Test coverage measured via **NCover**.

## *Senior Technical Assistant, Skipton Building Society, Image Processing Dept. Skipton*

13th October 2003 to 5th January 2007 (3 years 4 months) Permanent

* Full life-cycle development, support and enhancements to bespoke imaging and workflow applications (**VB6/SQL 2000**).

# Personal Projects:

I started programming from a young age, and I have always maintained many personal projects to broaden and deepen my skills including:

## Cryptocurrency Trading Bot (current)

A **.NET Core Azure Function** based cryptocurrency trading bot.

* Runs on multiple exchanges, trading both spot and CFD, with multiple strategies.
* Implemented market indicators, including Stochastic, RSI, MACD, Parabolic Stop and Reverse.
* Using REST APIs, web sockets to stream realtime market information.

## Raspberry Pis

I have several **Raspberry Pi**s running a variety of **Python** applications such as Twitter bots, controlling lights etc. These have helped me learn more about **Linux** and **Python**.

## Websites

All my websites are built using **Bootstrap**, and hosted on **Amazon Web Services**, using **S3** and **Route 53**.

* [andrewtatham.com](http://andrewtatham.com/) – Personal website.
* [isandrewtathamavailable.com](http://isandrewtathamavailable.com/) – Agency noise filter.

# Education:

## M.Eng. Electronic Systems Engineering Degree (2.2)

School of Engineering, University of Durham

Oct 1999 to June 2003

* Wrote a C program to control an embedded-microprocessor controlled water pump system using interrupts.
* Wrote a basic 2d element analysis program in C to analyse the stresses in an electricity pylon under loads.
* Designed a light-sensitive electronic robot simple enough for school children to build.

## Ermysted’s Grammar School, Skipton

September 1992 to July 1999

|  |  |
| --- | --- |
| A-Level: | GCSE: |
| * Mathematics (B)
* Physics (B)
* Biology (B)
* General Studies (C)
 | * 3 x A (Mathematics Physics Chemistry
* 6 x B
* 1 x D (French)
 |