Cameron Fletcher

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PROFILE

I have a strong technical background with proven skills in software development, analysis, and design. Having successfully worked in a variety of roles in diverse environments I am equally at home contributing to a team as I am leading one. I have an excellent understanding of software architecture and design with a particular interest in scalability and distribution, and a passion for elegance and quality.

I have helped develop solutions across a wide range of industries and businesses including investment banking, retail banking, mortgage services, asset management, telecommunications, and logistics. I relish the challenge of identifying and solving problems at all levels; from analysing business processes to building intuitive user interfaces.

My strong interpersonal skills ensure that I am able to develop productive relationships with clients and colleagues at all levels. I am as at ease mentoring junior members of the team as I am presenting to senior management.

OPEN SOURCE

I am an active developer of several OSS projects and author of several NuGet packages:

- GitHub: https://github.com/cameronfletcher
- Bitbucket: https://bitbucket.org/cameronfletcher
- NuGet: https://nuget.org/profiles/cameronfletcher

QUALIFICATIONS

- Certified ScrumMaster (CSM)
- Microsoft Certified Professional Developer (MCPD)
- Microsoft Certified IT Professional (MCITP)
- 4 A Levels: Maths, Further Maths, Electronics, and Physics

TECHNICAL EXPERTISE

Languages and Technologies
C#.NET (up to C# 7), VB.NET, LINQ, DLR
.NET Framework versions up to 4.7
.NET Core 1.1 (.NET Standard 1.6)
HTML, CSS, JavaScript, JQuery, AJAX
HTTP Web Services, SOAP
XML, XSD, XPath, XSLT, Linq2XML

Frameworks
ASP.NET Core, ASP.NET Web API,
Nancy, ServiceStack, OpenRasta
ASP.NET MVC Framework,
Windows Communication Foundation (WCF)

Database Technologies (RDBMS, ORM, NOSQL)
SQL Server, T-SQL
SQL Server Integration Services (SSIS)
SQL Server Reporting Services (SSRS), RDL, RDLC
Linq2SQL, Raven DB, Mongo DB
ADO.NET Entity Framework, NHibernate

Messaging
Rabbit MQ, MassTransit, Rhino Service Bus,
Rhino Queues, MSMQ, NServiceBus

Other
Internet Information Services (IIS)

Integrated Development Environments (IDEs)
Visual Studio, Visual Studio Code,
SQL Server Management Studio (SSMS)

Version Control Systems (VCS)
GIT, Mercurial, SVN, Team Foundation Server (TFS),
SourceSafe 6.0 / 2005, CVS, SourceGear

Continuous Integration Servers/Build Tools
TeamCity, Jenkins, Bamboo, CruiseControl.NET, TFS
Rake, Build.NET, MSBuild, nAnt

Testing Frameworks/Tools
xUnit , xBehave, NUnit, TSQLUnit, MSTest, NMock,
Moq, Rhino Mocks, NCover, NDepend, Fiddler,
Selenium RC / WebDriver, Microsoft Fakes (Moles)

Architectures and Architectural Patterns
N-Tier, SOA, REST, EDA (event-driven architecture)
Event Sourcing, CQRS, IPC (inter-process communication)

Methodologies, Approaches, and Workflows
Test Driven Development (TDD)
Behavioural Driven Development (BDD)
Domain Driven Design (DDD)
Agile (Scrum / XP)
DevOps
Git Flow/GitHub Flow

ADDITIONAL INFORMATION

I run the Zurich based .NET developer conference *FlashCon*: https://twitter.com/flashconzurich

Written and verbal references are available on request.

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CAREER HISTORY

Aug 2016 – Present

Credit Suisse, Zürich
Software Developer (Vice President)
C#, .NET 4.6.2, .NET Core 1.1, WebAPI, SQL Server, HTML5, JavaScript, DDD

Having experienced first-hand some of the inefficiencies associated with software delivery within the confines of the change management process, I elected to apply a level of automation in order to attempt to tackle this problem. In this role, I was developing software for use in a DevOps capacity.

Hawkeye
The primary goal was to minimize the amount of time developers spend working on non-development based tasks in an effort to reduce the lead time from a commit to the deployment of that code into production.

The system I developed was driven by source code commits leveraging integration endpoints including Github, SVN, JIRA, TeamCity, and ServiceNow to streamline and automate the process of change request creation by reducing that effort to a single click (which itself could be automated). As the system is scalable and service based with a web front-end it has the potential to be used across the bank resulting in significant cost saving opportunities.

Nov 2013 – Jun 2016

Credit Suisse, Zürich
Team Lead (Vice President) for Structured Products (Equity Derivatives)
C#, .NET 4.5, NancyFx, RabbitMQ, MongoDB

As the IT owner of the Equity Derivatives trading platform for Credit Suisse, Zurich, I was responsible for the platform's continued development and maintenance including introduction of additional business features for the Front Office, ensuring platform stability, participation in budget planning, and leading the Zurich based development team.

Managing the Strategic Risk Offshore Development Team
In order to combine separate trade entry and counterparty association systems I worked closely with our offshore development team in the capacity of a product owner to develop an integrated cross-platform secure trade entry system, TradeR, which has since gone on to become the strategic trade entry system for Credit Suisse in Switzerland.

Leading the Strategic Risk Development Team
As part of the strategic risk programme there was a requirement to provide Zurich based trade data to London for high-frequency intraday risk valuation in their strategic risk system. I led the Zurich based development team in developing a trade loader application that would operate continually on the Zurich back-end trade store so that trades would flow through as they occurred. During this time, I Introduced acceptance testing on a BDD level against API boundaries reducing the burden of continually rewriting brittle unit tests.

Jan 2011 – Nov 2013

Credit Suisse, Zürich
Software Developer for Structured Products (Equity Derivatives) (contract)
C#, .NET 4.0, ASP.NET MVC 3.0, OpenRasta, ServiceStack, NancyFx, WebAPI, RabbitMQ, MongoDB, Bamboo, Team City, Agile, Scrum, CQRS, Event Sourcing, xUnit, xBehave

In this role, I was working within the Investment Banking Equity Derivatives department for the structured products group to provide pricing and risk computation for Front Office traders.

The majority of the development work I was involved in during my time in this role was related specifically to improving performance and scalability of existing systems. I introduced an effective agile process to the team and helped to shape some of the practices that resulted in the team transforming into an effective delivery unit.

Valuation Application
The team was asked to provide a solution that would replace the existing Excel spreadsheets used for building and pricing the market on the trade floor due to performance and memory issues. The solution consisted of a front-end web site hooked up to an HTTP service layer which resulted in a single user interface that handled communication with all of the existing distributed pricing application instances.

Market Store Component
There was a requirement to move some of the data used during the building of market environments out of a generic EAV database because of general performance issues.

The delivered solution was comprised of an application host with a back-end SQL Server event store (write model), HTTP service layers for command and query operations. It made use of RabbitMQ for out-of-process communication, and MongoDB for storing denormalized data (read model). A migration component was written to initially populate the system with events. The result was a better performing, less complex solution. To my knowledge this was the first fully event-sourced CQRS system within Credit Suisse.

Establishing a Strategic Risk Offshore Development Team
The team was instructed to establish an offshore development team. I was responsible for interviewing and hiring the offshore team members. I then spent a significant amount of time coaching and mentoring them and bringing them up to speed on our software systems and development methodologies.

Cameron Fletcher [Continued]

Sep 2009 -
Dec 2010

Standard Life, Edinburgh
QA Developer (contract)
C#, .NET 4.0, WCF, SQL Server 2008, SSRS, MSBuild, NAnt, GIT, SVN, StyleCop, FxCop

As more people got involved in the Wrap project (see previous role) there was an increased need for enforcing conformance to standards and best practice across the code base. I was involved in writing automated rules to aid with code analysis, extending FxCop and StyleCop, and enforcing these on the CI builds. I was also responsible for setting up the Standard Life CI build environment which comprised of GIT, SVN, SQL Server 2008, Nant, and MSBuild scripts, all of which I had to install and configure.

Oct 2009 -
Aug 2009

Standard Life, Edinburgh
Developer (contract)
C#, .NET 3.5, ASP.NET MVC 2.0 Framework, SQL Server 2005, WCF REST, LINQ, AJAX, NANT, Agile, TDD, DDD, Team City, JQuery, GIT, NHibernate, Fitness

I was working within a team of 30 developers on a rewrite of the FNZ Open Wrap platform working directly with FNZ for Standard Life. My role was to help develop the front-end for the system bringing knowledge of the Microsoft technology stack to the project.

FNZ Wrap Platform
The system was designed around an MVC front-end hooking into WCF REST services to speak to the domain. Domain persistence was handled by NHibernate to SQL 2005. Over a number of iterations our team would take a vertical slice of the existing system and write the corresponding end-to-end functionality for the new system. The project used Team City for continuous integration and xUnit for writing BDD unit tests, Rhino Mocks for mocking. We also wrote tests using Selenium to smoke test the site.

Jun 2009 -
Sep 2009

Cordia LLP, Glasgow
Lead Developer (contract)
C#.NET 3.5, ASP.NET MVC 1.0 Framework, SQL Server 2008, WCF, LINQ, AJAX, IIS7, MSBuild, Agile, TDD, Cruise Control, JQuery

I was leading a team of 4 on a greenfield project to develop a transport and scheduling system to replace existing outsourced taxi trips for Glasgow City Council. My role involved architecting the system, mentoring other members of the team, and liaising with project stakeholders. The project was run using Scrum.

Transport and Scheduling Services
I designed the system to be based on the ASP.NET MVC Framework and Linq2Sql. I set up an automated build environment for continuous integration and a daily build (for test) using a combination of MSTest, MSBuild, CruiseControl.NET, PartCover, and FxCop. I also implemented a QA process and enforced coding standards and analysis using Microsoft StyleCop and Microsoft FxCop. I was responsible for introducing test-driven development and continuous integration to the organisation.

Jun 2008 -
Jun 2009

Informed Solutions Limited, Manchester
Senior Developer (contract)
C#.NET 3.5, SQL Server 2008, Oracle 9i / 10g, WCF, .NET CF, LINQ, MVC, XML, Web Services , XSD, XPath, XSLT, XML Spy, VBA, SOA, Active Directory, Remoting, IIS7, TFS, MSBuild, Agile, TDD

I was contracted to help with the service management of several projects in place of an individual who was on extended leave. I was primarily involved in troubleshooting and debugging issues that arose with these systems.

Incident Recording System (IRS) for the Fire and Rescue Service
I helped develop a relational database for client visibility based on data which was held in XML format in a separate database. I set up a framework for continuous database integration for the development lifecycle and designed and wrote automated T-SQL tests to continuously validate the transformation of the data between systems. I also wrote a C#.NET Remoting component to monitor server health.

Mar 2008 -
Jun 2008

Ignis Asset Management, Glasgow
Developer (contract)
VB.NET 2.0, ASP.NET 2.0, SQL Server 2005, SSIS, SSRS, IIS 6.0, MSBuild

I was a member of a team developing a number of reports that would be run monthly for the two life divisions of the company. The data was stored in ICON, a flat-file financial database, which presented additional complications due to its size.

Monthly Reporting System
The reporting solution was a tiered application comprised of an ASP.NET front-end, a VB.NET business layer and a SQL Server back-end database. There was also a Windows Forms client, a Windows Service to manage migration of the data from ICON, and a database deployment package using SSIS.

I was responsible for writing the reports for admissible assets and unit linked growth funds. This involved updating the database project and associated MSBuild scripts, writing stored procedures, amending standing data imports, and writing and deploying the reports. I was also required to optimise performance.

Nov 2007 - Mar 2008	**Standard Life Bank, Edinburgh** **Developer (contract)** *C# 2.0, Windows Forms, SSRS, MVC, SVN, NUnit, NMock, nAnt, Agile, TDD*

I was brought in as a member of an existing team to help port an existing call centre mortgage application to .NET from a 3rd party proprietary technology, GTX.

Mortgage Application Processing System
The new solution was a tiered application comprised of a C# Windows Forms client (utilising the model-view-controller pattern), a Java business layer (implemented as a SOA framework) and a DB2 database.

The project followed an agile (Scrum/XP) methodology. My main task was to port the Key Facts Illustration section of the application using SQL Server Reporting Services. My responsibilities include determining requirements, developing and unit testing the application.

Jul 2006 - Nov 2007	**Kingston Communications (Hull) plc. (formerly Affiniti), Stirling** **Technical Lead (contract)** *C# 2.0/3.0, WCF, SOA, XML, Web Services, SQL Server 2005, SSRS, VBA, SourceSafe 2005, ADAM*

It was my responsibility to handle the data required for roll-out of 13,500 VoIP telephones across Fife council. I was tasked with developing a system that would allow administrators for both the project delivery team and the end-client to access and amend the data whilst ensuring that the system was functional, secure, scalable and resilient. From the information entered into the system I was able to identify the equipment needed on each of the 400 sites and produce a work package for the engineers to implement. My role also involved frequently liaising with technical representatives, the end-client and project stakeholders.

IPT Project Delivery Database
The solution comprised a C#.NET WinForms front end client that communicated with a back-end SQL Server database. SSRS was used for the reporting. I was also called upon to manage further integration of the system to communicate with Cisco systems using their AXL web service.

Mar 2006 - July 2006	**Fundworks (UK) Limited, Glasgow** **Senior Developer (contract)** *C# 2.0, Windows Forms, ASP.NET 2.0, Enterprise Library, Application Blocks, SQL Server 2005, T-SQL*

I was a senior member of the development team and acted as tutor and mentor to the junior members. I was involved in designing and documenting the online investment portfolio management system.

Investment Portfolio Management System
The solution comprised a tiered ASP.NET 2.0 front end with C# business and data components. The data was stored in an SQL Server 2005 database, accessed via both TSQL and CLR stored procedures. In addition, a Windows Forms user interface allowed client management for the business administrators. The web based reporting solution comprising prices, performance, charting and illustration modules has been implemented in a number of asset management companies and achieved Microsoft Certified Partner status for the business. The solution was subsequently used by several major asset management companies.

Dec 2004 - Mar 2006	**Contextus Limited, Falkirk** **Lead Developer (contract)** *VB.Net 1.1, Windows Forms, SQL, CVS*

I was responsible for leading the development team, designing and documenting the solution and liaising with the patent lawyers involved with the designs. I experienced a high degree of interaction with technical peers at the forefronts of their respective fields through various activities organised by the Scottish Government and centred on innovation and excellence.

Virtual Private Database Network
The solution comprised a VB.Net 1.1 front end with a peer-to-peer back-end bundled with each client. It required significant analysis of the SQL language and innovative solutions designed to combat such problems as designing and developing a distributed query engine to retrieve partial records from different nodes. There was heavy emphasis on multithreading and windows sockets programming. During the design of the system I identified established patterns and developed object, component and data models.

The project was submitted to the Scottish Government for a SMART award and won a £50k prize.

Nov 2003 - Dec 2004	**Sainsbury's Bank, Edinburgh** **Developer (contract)** *Visual Basic 6.0, VBA, Microsoft Access, Microsoft Office, SQL*

Purchase Order System
I developed the bank's purchase order system using Microsoft Access from an existing specification document. The project finished on time and it was considered bank-wide success.

I was subsequently asked to remain working for the bank on an open-ended contract and was involved in developing several other systems including budget tracking models, salary bonus calculators, and market analysis tools using both Microsoft Access and Visual Basic 6.0.