

Curriculum Vitae

Pat Mc Grath

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PERSONAL STATEMENT

I am a software professional with 20 years experience delivering solutions for the financial services industry. I've worn many hats in my career - solution\technical architect, team leader, software engineer, database administrator, systems administrator and build engineer. As a result, I draw on these experiences when solving technical problems.

During this time I have been responsible for:

- Leading, guiding and assisting technical teams on system architecture, design and implementation
- Communicating and facilitating future vision of the software portfolio
- Championing the inclusion of quality assurance and operations team members participation in projects from project inception through delivery
- Researching, evaluating and adopting a wide variety of technologies
- Championing appropriate new\alternative technologies to further enhance the business and provide new opportunities
- Mentoring and training technical team members
- Championing software delivery processes, standards and quality

EMPLOYMENT HISTORY

TravelRepublic, London, UK.

**May 2015 – Present
Senior Developer**

Working with teams migrating existing services and deploying new services to run on internal kubernetes clusters, this has included:

- Building and operating kubernetes clusters
- Metrics\single sign-on
- Implementing initial migration of some existing .NET services to run on cross platform .NET core
- Guiding and educating other teams with their service migrations
- CI\CD pipeline standardization
- Developing tools in golang to assist with running content on the clusters

Technologies: kubernetes, Docker, Prometheus, Grafana, dex, Go-CD, .NET Core, golang and bash

Designed and implemented a tokenisation solution to manage sensitive data (i.e. Credit card numbers). This led to a reduction in the PCI DSS assessment scope, which lowered the initial and ongoing assessment costs. It is planned to offer this service to other groups within the parent group (dnatatravel.com) in the near future. This project implementation included:

- Working with the system architect on the design of service contracts
- Integration with existing systems that were mandated to replace sensitive data with tokens
- A secure AWS environment which was automated using Terraform, this also included blue/green deployments
- Implementation of a number of services, developed in golang using AWS KMS for cryptography and AWS DynamoDB for storage
- Structured logging which was forwarded to loggly.com using rsyslog
- IDS and WAF services
- AWS AMI image creation using Packer
- CI/CD using Go-CD and docker
- Secret management and sharing

Technologies: golang, bash, git, AWS services, Terraform, Packer, Squid, nginx, Ubuntu 16.04, Go-CD, Docker

Created a microservice template and supporting tools for teams migrating to a microservices architecture. This included conventions for CI/CD, metrics, logging, exposing Swagger documentation and visualising service dependencies.

Technologies: c#, Powershell, Bash, .NET v4.5.1, Docker, RabbitMQ, Go-CD, Microsoft SQL Server 2008 R2, Git, Windows 2008 R2, Ubuntu 14.04 and 16.04

Continuum Commerce Solutions, Kerry, Ireland.

**Jul 2007 – Aug 2014
Technical Architect**

Designed and implemented services in support of evolving DCC (Dynamic Currency Conversion) and (MCP) Multi-Currency Pricing solutions. This included:

- Integration with Global Distribution Systems (Amadeus, Navitaire, Sabre)
- Integration with airline systems (Etihad Airways, Air New Zealand, Monarch)
- Integration with payment service providers (Visa, CyberSource, MasterCard Internet Gateway Service)
- Hosting merchant web site's payment workflow
- Migration of existing solutions architecture to a SOA/Microservices architecture, standardising on REST for synchronous communication and RabbitMQ for asynchronous communication
- Migration to continuous integration with automated deployments
- Migration to a fully virtualized VMware environment
- Migration to git source control
- Centralised logging using Elasticsearch, Logstash and Kibana
- Metrics collection using StatsD and Graphite
- Centralised reporting using Microsoft SQL Server 2008 R2 Reporting Services (SSRS)

Technologies: c#, Ruby, golang, Powershell, Bash, .NET v4.5.1, Mono v3.0, Docker, RabbitMQ, MSMQ, Microsoft SQL Server 2008 R2, MongoDB, Redis, Git, Subversion, Windows 2008 R2, Ubuntu 12.04, Ubuntu 14.04

Global Currency Exchange, Kerry, Ireland.**Feb 2004 - Jul 2007
Technical Architect**

Designed and implemented a multi-currency solution that was a replacement for existing custom solutions, this included the first ever online DCC (Dynamic Currency Conversion) offering.

Technologies: c#, .NET v3.0, MSMQ, Microsoft SQL Server 2005, Subversion, Microsoft Windows 2003

Global Currency Exchange, Kerry, Ireland.**Mar 2001 - Feb 2004
Development Team Lead**

Development and maintenance of a number of custom back office DCC (Dynamic Currency Conversion) solutions.

Technologies: Microsoft Visual Basic .NET, c#, Microsoft SQL Server 2000, Microsoft Visual SourceSafe, Microsoft Windows 2000

FEXCO, Kerry, Ireland.**May 1997 - Mar 2001
Senior Software Engineer**

Development and maintenance of an online accommodation booking website and a corporate VAT refund processing system.

Commonwealth Bank, Sydney, Australia.**Jun 1996 - Apr 1997
Software Engineer**

Provided product support for a range of products on the currency trading floor.

FEXCO, Kerry, Ireland.**Nov 1994 - Apr 1996
Software Engineer**

Development and maintenance of data entry platforms for tourism and corporate VAT refunds.

EDUCATION

Waterford Institute of Technology, Ireland

Bachelor's Degree, Computer Software Engineering, 1992 - 1994

Institute of Technology, Tralee, Ireland

National Diploma, Computer Software Engineering, 1989 - 1992

ADDITIONAL INFORMATION

I am a co-founder of the local Kerry Technology User Group.

I have presented on numerous topics at local technology groups.