

# Gareth Parris

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I am an experienced software developer, systems architect, and DevOps engineer, with team leader experience. Whilst much of my work is primarily on the Microsoft stack, my passions are all technologies, and I'm keen to keep up-to-date with a wide range of platforms and languages.

I have broad experience in software and hardware, covering multi-tier, real-time, data-driven, cloud-based, desktop, mobile and IoT development.

I am self-motivated and can work without supervision. I'm fully capable of working remotely. I have good communication skills, with a strong client focus, and a passion for quality.

I've worked in various companies, ranging from consultancies and start-ups, to global investment banks and Formula 1 motor racing.

## Education

- BSC (Hons) Computer Science (Software Engineering), Upper Second-Class Honours (2:1), *University of Hertfordshire, 1991 - 1995*

## Core Skill Areas

- Desktop, Web/Cloud System Architecture
- Desktop, Web/Cloud Software Development
- Database Design and Performance Profiling
- Testing (TDD, Unit, Integration, Automation)
- Technical Advisory and Oversight
- CI/CD, Build Pipeline Management
- Microservice Design and Development
- Interactive Exhibition Development
- AGILE, RAD and other methodologies
- Team Lead and Mentoring

## Core Skills

- Microsoft C#, .NET 6, Core, Framework
- WPF, MVVM, MEF, TPL, RabbitMQ
- Azure Platform, Azure DevOps
- API: REST, gRPC, Swagger, Postman
- *Testing*: xUnit, NUnit, MSTest, Fluent Assertions, NSubstitute, Rhino Mocks, SpecFlow, Selenium
- *Build*: Azure DevOps, VSO, TeamCity, Jenkins
- Legacy VB.NET, ASP, WCF, Webforms, Winforms
- IOT: Raspberry Pi, Arduino
- Linux, Apple macOS
- ASP.NET, MVC, Razor, WebAPI
- HTML, Javascript, JQuery, CSS
- Microsoft SQL Server, PostgreSQL
- *Profiling*: Resharper, ANTS, SciTech
- GIT, VSO, TFS, Subversion, Stash, VSS
- Docker, Docker Swarm, Portainer
- Atlas 10, Atlas 9, System Monitor
- Resolume Arena, Avenue, OSC
- Octopus Deploy
- Home Assistant

## Experience of

- Amazon Web Services
- Blazor, SignalR, Silverlight
- Dapper, Entity Framework, NHibernate
- MySQL, SQLite
- Consol, Ocelot, ELK Stack, Kubernetes
- F#, Python, Swift, C++
- iOS Objective-C, X-Code
- Angular, React

## Business Areas

- F1 / Motor Racing Analytics
- Interactive Experience Development
- E-commerce, Payment Processing
- Futures & Options Trading
- Order Matching
- Web design and SEO
- Diamond Grading Process
- Genetic Algorithms
- Environmental Vehicle Management
- Credit Risk (VAR)
- Share Registrar
- Mortgage Processing

## Interests

Scuba Diving (TDI Normoxic Tri-mix & PADI Assistant Instructor), Road and Mountain Biking, Swimming, Running, Electronics, Drones, Crypto-currencies.

## Professional Career

### **SAVERNAKE CAPITAL**

Feb 2021 to Current

#### **Chief Technical Officer (Permanent)**

Savernake Capital is a quantitative investment management company specialising in adaptive machine learning. They utilise a self-learning portfolio building system to trade global financial markets, adapting in real time to changing conditions.

Employed as CTO, I reported directly to the CEO. In this small start-up company, my responsibilities were very hands-on, covering all areas from implementing a DevOps solution with Microsoft Azure, .NET software architecture, development and deployment using C# on Windows and Linux, unit testing, debugging, performance profiling, network infrastructure design, provisioning and administration and hardware specifications and building.

I was regularly involved in code reviews, pair programming, mentoring, interviewing, purchasing, support and communicating with investors.

Further details include the design and administration of PostgreSQL databases, migrating from MySQL. Migration of .NET Framework real-time trading applications to .NET 6. Migration from legacy MSMQ to RabbitMQ. Design and prototyping of a scalable product platform using microservices and containers.

### **TRIANGLE / OUTCOMES STAR**

Jun 2020 to Jan 2021

#### **Star Online Technical Oversight (Contract)**

Triangle is the company behind the Outcomes Star. The Outcomes Star is an evidence-based tool for measuring and supporting change when working with people.

I was contracted to provide a technical oversight between the business and a 3<sup>rd</sup> party development company (QES). The role involved auditing and validating the database, code and architecture of the system, reviewing the infrastructure and system performance, assisting with the migration process of 30,000 users from version 1 to version 2, advising on future technologies and pathways, and assisting in getting a robust testing foundation in place to minimise re-occurring bugs.

### **DE BEERS FOREVERMARK**

Oct 2018 to Mar 2020

#### **Diamond Grading, Inscription and Retail: Senior Developer / Technical Lead (Contract)**

De Beers Forevermark is a diamond Grading, Inscription and Retail company. It grades and inscribes Diamonds using bespoke hardware along with bespoke software and workflow-based applications. It has grading laboratories based in Maidenhead, Antwerp and Surat, with their head office in London.

As Technical Lead I was part of a 5-man team designing and developing the next generation of workflow processing software used to grade and inscribe diamonds in the laboratories for the end customer.

This involved analysis and support of the existing 14-year old legacy WPF / ASP.NET software and replacing it with a microservices-based architecture built with .NET Core 3, WPF, Web API and SQL Server. This was initially hosted on-premise in Docker containers, with a view to later to be migrated to Azure.

Additionally, I migrated the entire legacy build and deployment architecture from MSTFS and Final Builder with a custom deployment tool, initially to GIT, TeamCity and Octopus Deploy and then later to Azure DevOps Repos and Pipelines.

### **MERCEDES AMG HPP**

Oct 2017 to Mar 2018

#### **Automotive / Formula 1 Racing Company: Senior Developer (Contract)**

Mercedes AMG High Performance Powertrains is a team of over 500 people responsible for the design, manufacture and testing of Formula 1 power units for Mercedes AMG Petronas, Sahara Force India and Williams Martini Racing teams.

As part of the I.T. Business Systems team I was partly responsible for the re-design and maintenance of several key data transfer packages that provided raw data from the Formula 1 telemetry systems back to the teams in the pit lane and at the factory in order for them to quickly diagnose and resolve problems.

I was also responsible for designing and developing a new application framework (C# .NET / WPF / MVVM / MEF) to host the data transfer packages and supporting applications, porting several legacy VB.NET applications to C# and also maintaining and improving the Mercedes Damage Planner application.

### **BRITDAQ LTD**

Jun 2017 to Sep 2017

#### **Financial Services company: Senior Developer (Contract)**

Britdaq is financial services company, offering share matching facilities for private companies and investors, a live company share registrar service, company secretarial services via Companies House and an online discussion forum for investors.

After the 3-year contract mainly away from home with McLaren I took up a short-term contract with Britdaq again to allow me to work from home and spend more time with my family.

My tasks included:

- Migrating away from the Microsoft SQL Server backend database platform to the open source PostgreSQL database. This allowed Britdaq to reduce their running costs as a commercial database licence was no longer required
- Establishing a MVC framework to allow Britdaq to migrate from the legacy ASP.NET Webforms to ASP.NET MVC. This predominately involved re-writing the ASP.NET Webforms Membership and Role providers to use the newer ASP.NET Identity API with OWIN Middleware. Installing and configuring development and production PostgreSQL databases and modifying the database schemas appropriately
- Investigating and implementing a test platform on Amazon Web Services to move Britdaq off an unmanaged Windows 2012 server platform in order to simplify the day-to-day backend management and to further reduce running costs
- Implementing unit, integration and system tests where possible to cover the migration of all application tiers to the new framework. This involved using NUnit, NCrunch, Fluent Assertions and NSubstitute.

### **MCLAREN APPLIED TECHNOLOGIES**

Jul 2014 to Jun 2017

#### **Automotive Company: Senior Developer (Contract)**

McLaren is a highly successful Formula 1, performance car manufacturer and a leading technological innovator. I was contracted as a senior developer to work on their ATLAS (Advanced Telemetry Linked Acquisition System) software. ATLAS is used for real-time analysis, monitoring and prediction in Formula 1, NASCAR, San Francisco's BART and Birmingham Children's hospital. Written in Microsoft C# .NET, it is implemented with WPF + MVVM and DirectX in a multi-threading architecture. The project used Agile SCRUM as their development methodology and was a fully Test-Driven Development project.

My role was to assist the team in producing a release version of the new ATLAS 10 Platform to all of the major teams and the FIA in time for the 2017 Formula 1 racing season.

- Assisted with the design and development of the ATLAS 10 software using C# .NET 4.6.2, WPF/MVVM, Multi-threading, DirectX and TPL
- Writing and maintaining unit and integration tests to ensure good code coverage across the project assemblies using TDD with NUnit, NCrunch, Fluent Assertions and NSubstitute
- Team point of contact for liaison with some third-party tools, e.g. Actipro
- Bug fixing, maintenance and refactoring as necessary
- Practicing Agile SCRUM methodology throughout; daily stand-ups, backlog refinement, sprint retrospectives, etc.

<b><u>BRITDAQ LTD</u></b>	Aug 2011 to Jun 2014
<b>Financial Services company: Technical Architect / Team Lead / Senior Developer (Contract)</b>	
<b><u>ROYAL BANK OF SCOTLAND</u></b>	Feb 2011 to Aug 2011
<b>Credit Risk Technology: Senior Software Developer (Contract)</b>	
<b><u>LINERMARK SYSTEMS LTD</u></b>	Aug 2008 to Feb 2011
<b>Software Consultancy: Consultant / Architect / Senior Software Developer (Contract)</b>	
<b><u>BARCLAYS CAPITAL</u></b>	Aug 2006 to Aug 2008
<b>Credit Risk: Software Developer UVAR (Contract)</b>	
<b><u>EASYSCREEN PLC</u></b>	Dec 2004 to May 2006
<b>Futures &amp; Options Trading: Software Developer (Contract)</b>	
<b><u>INTELLIGENT RISK LTD</u></b>	Jun 2003 to Nov 2004
<b>Mortgage Processing: Software Developer (Permanent)</b>	
<b><u>EASYSCREEN PLC</u></b>	Jan 2000 to Jun 2003
<b>Futures &amp; Options Trading: Software Developer / Team Leader (Permanent)</b>	
<b>Refco EasySolutions (Joint Venture) based in London &amp; Chicago</b>	
<b>Futures &amp; Options Trading: Software Developer (from April 2002)</b>	
<b><u>NATWEST GLOBAL FINANCIAL MARKETS</u></b>	Feb 1998 to Jan 2000
<b>Credit Risk Technology: Software Developer (Contract)</b>	
<b>Technology Infrastructure: Support Analyst / Developer</b>	
<b>Finance Technology: Support Analyst / Developer</b>	
<b><u>UNION BANK OF SWITZERLAND</u></b>	Sep 1997 to Feb 1998
<b>Development: Programmer (Permanent)</b>	
<b><u>HUMAN ENTERPRISE LTD / COMPUTER TELEPHONY SERVICES LTD</u></b>	Jun 1995 to Sep 1997
<b>Development: Programmer / Consultant (Permanent)</b>	
<b><u>UNION BANK OF SWITZERLAND</u></b>	Jun 1993 to Sep 1994
<b>Information Technology: Support Analyst &amp; Developer (Industrial Placement)</b>	