

# David Gareth Werren – Curriculum Vitae

## *Personal Details*

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Mr. David Gareth Werren M.Eng (Known as Gareth)

## *Summary*

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I am a highly experienced software engineer with excellent technical ability. I have keen technical interests in performance, usability, maintainability and software architecture as well as a strong desire to understand the business I am working in.

I enjoy working across the entire development lifecycle from initial business needs through to high quality, relevant solutions. The majority of my experience is in the financial sector which I find an extremely interesting sector to work in.

I am hardworking and willing to work unsociable hours when necessary, leading to an excellent track record in meeting deadlines. I am able to work equally well on my own or as part of a team and co-operate well with other people in a friendly and effective manner.

## *Technical Skills*

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Primary Languages	C# (12+ years), SQL (10+ years)
Other Languages	HTML, CSS, TypeScript, JavaScript
Operating Systems	Mainly Windows
Primary Technologies	MS SQL Server (versions: 2005 – 2012), WPF, WCF, Entity Framework
Other Technologies	Bootstrap, React, TeamCity, Azure Web Apps, MassTransit & RabbitMQ
Software	MS Visual Studio, ReSharper, LinqPad, Mercurial, Code Compare

## *Education*

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Secondary Education: Applemore Secondary School (1993-1998)

- 11 GCSE's at grade C and above. Intermediate level Business Studies GNVQ (merit)

Further Education: Brockenhurst College (1998-2000)

- A Levels: Maths (A): Physics (A): Computer Science (A): Further Maths (B): General Studies (B)

Higher Education: Bristol University (2001-2005)

- M.Eng 2.1 (hons) – Joint honours: Computer Science, Electrical Engineering, Engineering Maths.

## *Interests*

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I enjoy riding motorbikes, walking and cycling, especially long distance (I have cycled from Lands End to John O'Groats and around New Zealand among other places). I also have a keen interest in traveling and have often combined this with cycling or motorbike riding.

## *Experience*

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Most of my professional experience is in building new systems or extending existing systems to solve specific business problems, as well as maintaining and evolving these systems over time. I enjoy being involved in every step of a project from working with the business to understand their needs through initial proofs of concept to completed solutions.

I have experience running teams for both small and large projects; using a variety of management methodologies as appropriate for each project. I also have strong experience providing technical management and direction both within and outside of my immediate team.

I frequently work closely with clients and consultants from initial proofs of concept through to successful project implementation.

I am a firm believer in automated testing and have strong experience developing automated tests at various levels (unit tests, integration tests, performance tests etc.)

I have acted as a mentor to many new starters and people moving into new product areas, making good use of my ability to explain and teach complex technical topics to people with all levels of experience.

## *Nov 2014 – Current*

*Lead Developer, River and Mercantile Solutions, London*

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River and Mercantile Solutions provide fiduciary and advisory services to pension funds. They have a suite of in-house trading, research and reporting software built and maintained by a team of 8 developers.

A large part of my role involves developing new systems or adding or enhancing features in existing systems. As lead developer I also provide mentoring and technical guidance across the entire team, review code and run our TeamCity build and test server. I also have two direct reports within the team. The following is a brief overview of some of the work I have been involved with:

- Core trading system
  - Designed and implemented complex trade modeling systems, both for securities and currency hedging with complex WPF user interfaces. The securities modeling system in particular has a drag and drop nested card system for picking and grouping trades allowing users to easily design trades within a complex set of rules and restrictions.
  - Designed and implemented currency hedge P&L asset level attribution for multi-asset hedges. A major part of this project involved building an understanding of the business behavior and developing the mathematical model as the business users were having difficulty working out how (and why) the attribution should work in more complex cases.
- Online client and consultant portal
  - Designed and implemented an online portal, both for clients to access up-to-date scheme valuations and liabilities and as a platform for more complex tools for our consultants to use in client meetings.
  - The portal is designed from the ground up with a pluggable feature (i.e. tool or component) framework allowing for the planned expansion of the portal to a major tool for internal consultant use.
  - Worked closely with senior consultants to define and build liability and return projection models for both simple and complex clients.
- Build, test and deployment
  - Implemented TeamCity for automated build and testing.
  - Designed and implemented processes and tooling for automated upgrade and deployment of dev, UAT and live environments to significantly reduce the risk and time of a deployment.

## *Aug 2012 – Nov 2014*

*Software engineer, Base 4, Cambridge*

Base 4 is a small biotech company developing brand new systems for accurate, long read length DNA sequencing. I was involved in many projects at Base 4 including the following:

- Lab systems control software – Lead developer
  - Designed and implemented highly accurate, time sensitive hardware control and data acquisition software for custom built microscope systems.
  - Built systems to manage high data volumes (e.g. 1Gb/s continuous data acquisition) using consumer hardware.
  - Automated optical recognition and sample positioning tasks.
- Data analysis software – Lead developer
  - Designed and implemented very flexible analysis tools to handle the data produced in the labs.
  - Implemented custom graphs and data viewers where off-the-shelf components did not fit the requirements.
- “Domain Specific AutoCAD” – Lead developer
  - Designed and implemented a domain specific CAD program for designing microfluidic chips.

## *Jan 2007 – Jul 2012*

*Software developer, SunGard Adaptiv, Histon, Cambridge*

SunGard’s Adaptiv provides market and credit risk solutions to the financial sector.

Most of my time at SunGard was spent working on the Adaptiv Risk Cube, starting as the sole developer on an internal proof of concept and becoming the lead architect for the product. Prior to this I was involved in the integration of a fast, analytical pricing engine (Adaptiv Analytics) with the core market risk and STP product (Adaptiv 360).

- Pricing engine integration
  - Developed new pricing models and risk report calculations.
  - Implemented transformation and transfer of data between systems.
- Adaptiv Risk Cube – An Analysis Services (OLAP) based risk reporting engine – Lead architect
  - Developed streamlined systems for exporting trade level risk data from existing pricing engines during calculation, importing into the SQL Server staging database and on to Analysis Services.
  - Developed end-to-end tooling around the generation and upgrading of customized SQL Server and Analysis Services database schemas.
  - Managed successful client proofs of concept and subsequent implementations.
  - Managed integration efforts with other SunGard products (e.g. Front Arena).

## *Previous*

- 2005-2006: Customer services consultant, Business Collaborator
- 2002-2005: Part time computer and network installation and repair
- 2000-2001: Technical Test, IBM, CLS banking project