

# John Walley

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Senior software engineer with deep experience building data-intensive and performance-critical web applications, specialising in data visualisation and complex UI systems. Strong background in TypeScript, React, and modern frontend architecture, with a track record of designing maintainable systems, improving developer experience, and tackling hard technical problems. Comfortable operating as a senior individual contributor, influencing technical direction, mentoring engineers, and collaborating closely with product and design to deliver high-quality outcomes.

## Experience

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### Cambridge Intelligence

*June 2025-Present*

*Software Developer*

Senior engineer working on high-performance data visualisation tools used by analysts to explore complex graph, temporal and geospatial data. Contributing across product architecture, developer experience, and performance critical UI components.

### Mulberry House Software

*May 2016-June 2025*

*CEO & Founder*

Founded and grew a software consultancy delivering innovative solutions across multiple industries.

- Developed a floor planner in collaboration with Reno, a leading UK home renovation startup.
- Designed visualization tools for the pension industry in partnership with Financial Canvas.
- Created open-source data visualization libraries with over 80,000 weekly downloads (Allotment & Pennant) for Vega, a decentralized derivatives trading network.

### Redgate

*July 2015-May 2016*

*Trainee Product Manager*

Enhanced product visibility and usage for a newly acquired database deployment tool.

- Increased awareness and adoption through targeted marketing and outreach strategies.
- Implemented in-product analytics to provide actionable insights.
- Collaborated with UX specialists to prioritise features and improve user experience.

### Redgate

*June 2014-July 2015*

*Software Developer*

Developed solutions to streamline SQL Server database deployment for users of popular release management tools.

## Sungard

March 2012-May 2014

### *Software Developer*

- Contributed to a scalable framework powering a high-performance risk analytics service.
- Developed a tracing just-in-time compiler, enabling C# financial models to run efficiently on GPUs.

## Various

August 2011-March 2012

### *Software Developer (Freelance)*

- Designed algorithms for human motion capture using low-cost inertial sensors.
- Developed a bespoke financial trading tool tailored to an independent trader's needs.

## Fidelity

November 2010-August 2011

### *High Performance Computing Developer*

- Designed and implemented quantitative methods as part of the applied HPC team.
- Advocated agile development practices, including iterative approaches and stakeholder feedback.

## MathWorks

May 2007-November 2010

### *Application Engineer*

- Worked directly with customers to understand their technical and business challenges.
- Served as the main UK technical contact for MathWorks parallel computing tools.
- Prepared and delivered presentations to customers and prospects.
- Provided feedback to the commercial and R&D organisations.

## QinetiQ

October 2004-May 2007

### *Research Scientist*

- Assessed and improved warship stealth technology.
- Developed multi-sensor fusion techniques to enhance situational awareness.
- Created object tracking algorithms using C++, MATLAB, and Python.

## Newcastle University

Summer 1998 & 1999

### *Research Assistant*

- Conducted data analysis and modelling for a mass spectrometry experiment in Fortran.
- Co-authored a peer-reviewed paper: 'Hyperfine-resolved spectrum of the molecular dication DCI<sup>2+</sup>'.

## Education

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## **University of Oxford**

*September 2002-August 2003*

*MSc in Mathematical Modelling and Scientific Computing*

- Studied mathematical modelling, numerical linear algebra, numerical optimisation and distributed computing for computational finance.
- Explored the numerical solution of magnetic fluid flow in my dissertation.

## **University of Cambridge**

*October 1999-June 2002*

*BA in Mathematics*

- Studied a wide variety of topics with an emphasis on applied mathematics, statistics and theoretical physics.

## **Skills**

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### **Languages:**

TypeScript, JavaScript, CSS, C#, MATLAB

### **Frontend & visualisation:**

React, HTML Canvas, Web Workers, D3, high-performance rendering, large-scale data visualisation

### **Platform & tooling:**

Node.js, Next.js, Astro, Vite, Webpack, pnpm, git, monorepos

### **Specialised expertise:**

Data visualisation, API design, data analysis

### **Soft skills:**

Technical leadership, decision-making, mentoring, cross-functional work, product focus, architecture reviews, engineering standards, technical communication, public speaking