

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

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^{2+} '.

Education

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

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