**Edward Walton**

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Nationality: British Date of Birth: 23.09.87

**Personal Profile**

Software developer with 9+ years’ experience, specialising in mathematical modelling, scientific insight and data visualisation. Skills and experience include:

* C#, .Net, WPF, C++, MongoDB with experience in VB/VBA, SQL, Fortran and Python.
* Jira, Bitbucket, Git, Bamboo, Confluence.
* Supervision and training of junior staff.
* Working with clients and other third parties
* Competent with reporting in all elements of Microsoft Office.

**Employment History**

**June 2016 – Present Senior Software Engineer, Kratos Analytical**

C# .Net and WPF Applications with a MongoDB based data access layer.

Senior software engineer in the surface analysis group, creating applications to support control of XPS instruments and subsequent data analysis. Broad depth of knowledge required of everything from interfacing with the firmware code through to UI design.

As senior, my duties include working closely with stakeholders to develop requirements, coordinating a team of up to 8 developers, sprint planning and retrospectives, conducting code reviews, and coding-to and upholding coding standards. Required to fulfil duties of a scrum master on an ad hoc basis.

Projects were undertaken in an agile environment, with 2-week sprints with daily stand-ups. Sprints were tracked in Jira, code reviews completed in Bitbucket and solutions built and tested using Bamboo.

Encouraged team members to continue personal development with Pluralsight courses, and frequently contributed to a Confluence knowledge and best practices section. Drove the adoption of unit tests and Moq. Ported repositories from SourceGear Vault to Git, assisting team members to learn Git.

Lead on a project to create a new C# framework using WPF, Prism and MVVM to be the base for all future apps, with a focus on testability. Responsible for project planning, software architecture design and implementation.

Personally developed the capability to visualise data from an arbitrary collection of locations generating a new level of insight into spatial composition of samples.

**Sept 2010 – June 2016 Software Development Lead, ESR Technology**

Software Development Lead (Jan 2014 – Jun 2016)

Senior Consultant (Apr 2013 – Jan 2014)

Consultant (Sep 2010 – Apr 2013)

C++ applications with a C# and WPF User interface.

Software development lead in the safety and risk management group serving the oil and gas industry. Solutions were required to be accurate, efficient and thoroughly tested, as aspects were used or scrutinised by the Health and Safety Executive for land-use planning

Software projects included:

* 3D fire and gas mapping;
* Risk calculation with 2D visualisation;
* Personnel escape modelling.

Lead a small team in developing 3D fire and gas mapping software using a genetic optimization algorithm that I developed personally. Solution was built from scratch using the latest Visual Studio version and delivered to a demanding project schedule.

Expanded and provided support for risk software using advanced debugging techniques. Added new C++ models, including a model of the thermal flux field resulting from a jet fire impacting on walls in enclosed environments. The core library could be linked against from an Excel spreadsheet via C++/CLI. Implemented a comprehensive test unit suite. Solution also included a user interface in WPF and wrote to an SQL database.

Updated a 16-bit escape modelling program portion from Fortran, which could no longer be compiled.

Working for a smaller company, I was sometimes required to fulfil project duties outside of software development, including client meetings, travelling to offices around the world, and occasionally secondments to client sites necessitating simultaneous software development and project delivery.

Line manager to three staff and office representative for the graduate training program.

# Education and Qualifications

**2006 – 2010 University of Manchester, School of Physics and Astronomy**

#### Degree Result: 1st­ class Masters with honours in Physics

Had the opportunity to work with a research team developing cutting-edge technologies such as negative refractive index devices. Utilized a range of programming languages to collect and analyse data.

Covered many experimental areas including nuclear physics, digital and analogue electronics, and astronomy. My presentation skills have been strengthened as a result of defending my findings to a panel of academics.

* 1. **Canon Slade High School**

A-Levels: Physics A Chemistry A

Maths A Further Maths A

GCSE’s: 10 (5A\*, 3A, 2B) including English (A) and Mathematics (A\*)

## Interests and Activities

Sport – I enjoy playing football and played in the University/college squads. I have been lucky enough to be club captain of a cup winning squad.

Travel – I have travelled to many countries to experience different cultures, both alone and with friends.

Hiking – Current challenge is to reach the top of all 214 Wainwrights, the highest fells in the Lake District. I currently have 186 to go.

## References

Available on request.

**Voluntary Experience**

**Periodically 2008 - 2015 Voluntary work in Taizé, France**

Volunteered for short periods in a small village in France, home to a monastic order. My contribution involved interacting with up to six thousand young people, despite language barriers, and motivating them to participate in the life of the community.

**July 05 - June 06 Bolton Hospice**

Volunteered in a team that was responsible for the safe and smooth running of an institute where warmth, security and discretion were vital attributes. I developed my interpersonal skills in interaction with patients, nurses and visitors.