

# Jonathan Bowden

Jonathan is financial model developer and validator with experience in the banking, asset management and general insurance industries. As a modelling expert, Jonathan is proficient in model development in C#, VBA, R, Python and has recently learned C++ . He has strong model validation experience across a range of FX, securities and investment models and has also worked on statistical risk analyses for banks and government entities.

## Technical Skills

Language	Proficiency
VBA/Excel	10 years
R	1.5 years
C#	1 years
Python	1 year
C++	2 months

## Contact

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<https://github.com/bowdenjr>

## Professional Experience

### Manager: PricewaterhouseCoopers (London): Feb 2011 to date

- Leading a changing team of 5+ people in a substantial multi-year model validation project for a major FX settlement provider, covering pricing and settlement algorithms, data processes, swap generation and FX volatility across a range of platforms, together with stress-testing, back-testing and development of detailed test scenarios. This required independent modelling of the clients complex processes using extensive VBA programming and involved reviewing client C# code at a high level.
- Assisted a large UK bank in an internal audit of their algorithmic trading models. The Algos covered execution, hedging and pricing methodologies across FX and FI products. The audit included review of conceptual soundness, model development and testing, surveillance, controls and conduct risk.
- Line management responsibilities for 4 juniors, including career coaching, performance evaluation and ensuring wellbeing.
- Assisted an international bank with credit risk estimation in preparation for the IFRS 9 standard. He developed and automated the calculations required to compute PD estimates with the use of non-linear optimisation in R.
- A secondment to a large investment banking administration, providing ongoing valuations for a variety of liquid and illiquid cash securities, as well as contribution to the valuation of OTC derivatives.
- Leading a statistical analysis as part of the early stages of a large UK infrastructure project. The work focused on cost risk analysis and involved regular use of @Risk to generate simulations from a risk register.
- Long term secondment at a large personal lines UK general insurer in improving market reporting efficiency and accuracy in the run up to its IPO. Working in the reserving team, Jonathan turned several lengthy procedures into 5-15 minute operations through bespoke coding in VBA.

## **Investment Analyst: JLT Benefit Solutions (London): Jan 2007 to Jan 2011**

- Developed the performance monitoring model in Excel with use of VBA to improve efficiency and ease of use and so became an in-house modelling expert.
- Maintained a lead role in asset liability modelling, stochastic models and advanced bespoke modelling to set investment strategies for DB and DC pension schemes.
- Provided dedicated support to consultants in production of a broad range of analysis and reports in a timely and efficient manner and requiring minimal review.
- Frequent review of others work as well as delegation, workflow management and supervision in the production of reports.
- Organisation and leading of one-to-one training and formal group sessions for the junior analysts.

## **Pensions Administrator: Interserve Plc: Jul 2006 to Dec 2006**

Administration of the DB section of the Interserve Pension Scheme, processing new joiners, leavers and retirements amongst others. Performing different final salary calculations, writing to members, assistance with contribution reconciliation and payroll among other general office duties.

## **Education**

### **Institute and Faculty of Actuaries**

Associate level Actuary

### **The University of Reading: BSc Mathematics: 2.i: 2003 to 2006**

Presentation and Independent project: "Dynamical Systems and Chaos Theory"

### **Aylesbury Grammar School, Buckinghamshire: 1996 to 2002**

A-levels: Mathematics: B, Ancient History: B, English Lit: C. AS level: Economics: A

## **Hobbies and Interests**

- Carpentry
- PC gaming & Board gaming
- Wildlife and Natural History
- Astronomy and Astrophotography