# Paul Druce

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### Education

### PhD in Mathematical Sciences, University of Nottingham, UK:

2015 - Passed Viva 13/11/2019

In pursuit of my research I developed my knowledge of data analysis using the language Python. I also became familiar with the workings of Monte Carlo simulations and the application of machine learning to physical problems. A topic I am very interested in pursuing further.

#### First Class Masters in Mathematics and Physics, University of Warwick, UK:

2011**-**2015

I became proficient in the programming language C and its use in high-performance computing. I learnt how to implement parallel computing by making us of OpenMP and MPI frameworks.

A Levels, King Edward Vi Sixth Form: Maths: A\*, Physics: A, Chemistry: A.

2009 - 2011

I also completed the AQA baccalaureate during my A levels and have AS levels in Psychology, Critical Thinking and General Studies.

GCSEs, Birley Community College: 9 A's, 2 B's and one C.

2004 - 2009

### Professional Experience

#### **GCSE and A Level Tutor**

**August 2017- Current** 

I am a self employed academic tutor for mathematics and physics for all levels of schooling. I prepare lessons and question sheets at appropriate levels for my tutees. My role is to build the confidence and the abilities of my students and provide them with a comfortable environment to ask any questions they may have. I have an Enhanced DBS check and I am trusted by schools to give one-to-one tutorials to their students via the company MyTutor.

#### Postgraduate Demonstrator

<u>September 2015 - July 2019</u>

### University of Nottingham

Throughout my PhD I was an assistant in many of the courses ran by the School of Mathematical Sciences. I was entrusted to run small group tutorials (typically around 10 people) for courses in mathematical physics as well as aiding in the running of problems classes for many of the courses. I also helped mark coursework for the courses as well as marking the end of year exams of some of the courses.

#### **Open Day Assistant**

September 2012 - July 2015

### **University of Warwick**

Throughout my undergraduate degree I was part of the open day team for the Physics department at Warwick university. My role included taking the prospective students on tours of the campus, informing them of important and interesting aspects of the university. I was also given the responsibility to present experiments to prospective students, engaging them with thought provoking questions. I was also part of the team to inform the prospective students about the courses available by the Physics department and answer any questions they may have about life at university.

<u>Administrative Worker</u> <u>Aug-September 2012</u>

### Split The Bills Ltd.

My roles in this temporary role was to communicate with the students registering for the service and then contact utility providers to setup the new accounts. Handling any issues that would arise in a timely and professional manner. This role required me to keep meticulous records of the progress of each account and monitor a database to ensure a smooth customer experience.

Warehouse Operative 2010-2011

#### River Island

I was part of the team that unpackaged new deliveries of clothes and prepare clothing to be presented on the store floor. This required adaptability as each delivery changed in size. As well as good team work and communication as the unpacking procedure was split in to various stages, with a separate person per stage. As well as working in an efficient manner. I was also responsible for searching and retrieving clothing requested by the store front.

<u>Voluntary Sale Assistant</u> 2010-2011

#### **British Heart Foundation**

My role at the British Heart Foundation included assisting customers in finding items, informing them about the charity and maintaining the store. As the British Heart Foundation has a wide range of customers and staff, I had to quickly learn to adapt my communication and sales approach to fit their needs and situation.

# Teaching Experience

<u>Undergraduate Masters seminar</u>: I organised and delivered a two-semester long seminar on the topics surrounding my research to masters students at the University of Nottingham.

<u>PhD Demonstrating and Marking</u>: I was employed to help students with their questions for various undergraduate mathematics modules for Engineering students, Physics students and Mathematics students. I also marked the mid-term exams and coursework for various modules.

<u>GCSE</u> and <u>A Level Tutoring</u>: I am an experienced tutor in mathematics, further mathematics and physics at both GCSE and A-level standards for various exam boards. I have experience in both face-to-face tutoring and online tutoring via a shared whiteboard such as BitPaper. I also possess an Enhanced DBS check and I am trusted by schools to give one-to-one tutorials to their students via the company MyTutor

<u>Undergraduate Revision Classes</u> (2012-2015): Whilst as an undergrad, I organised and ran revision lectures on various topics including first year and second year physics modules. I also updated and maintained the revision guides the society had.

## Qualifications and Skills

I am fluent in the programming languages Python and C, and very familiar with the software Mathematica. I know how to use Linux, macOS and Windows systems to a high level. I am currently learning basic web development including HTML/CSS and I use Markdown and LaTeX extensively for my note taking. My hobbies include rock climbing and photography/videography usually combining the two. I therefore know how to use photo and video editing software. I have a valid First Aid Certificate (2017-2020) and an Enhanced DBS check (2017-2020). I also have a clean full drivers licence and motorcycle licence.