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PERSONAL STATEMENT

I am enthusiastic and ambitious with a PhD in statistics, and a strong background in analytical chemistry. I am both academically and creatively motivated and possess excellent interpersonal skills with the ability to work as part of a successful team. I am equally able to work individually on my own initiative. My recent past experience demonstrates my ability to manage a significant personal research project, meeting targets and adhering to strict deadlines. I have a natural ability to prioritise work and manage time efficiently in order to achieve goals.

I am highly skilled at presenting work in difficult subject matters as either a report or as an oral presentation in a manner appropriate to the audience. I am also adept at discussing ideas and open to opinions and advice. I have presented my research at high profile international conferences. My most recent employment is at one of the world's largest technology companies (IBM), where I have gained experience working within a global team. I thrive on pressured working environments, where I am constantly learning and expanding my knowledge. I am now seeking new challenges in an industry that I am passionate about, with a desire to make the best use of my skills and experiences whilst enabling both professional and personal development

WORK EXPERIENCE

July 2014-Present: QA Analyst, IBM, Hursley, UK

I qualified for a promotion from the graduate scheme to QA Analyst in July 2014. As a QA Analyst I am involved in the day-to-day testing of new features, and the submitting and verification of defects. Additionally, I am a key part of a small team working on automating our regression testing on all of our supported platforms (Windows, Linux, zLinux, pLinux, AIX and Solaris). I am in charge of the development and maintenance of our automation suite, which involves writing batch, Powershell and bash scripts to execute the automation, and modifying the C++ code of our internal tool that collates the automation results. I analyse the regression results and update the test cases and baselines, and identify and submit defects when necessary. I also investigate new technologies (such as Jenkins) that we might use to improve the automation.

Sept. 2012-July 2014: Graduate Software Developer, IBM, Hursley, UK

Graduate positions in Information Development and Quality Assurance, working on the SPSS suite of statistical analysis products. I collaborated with the software engineers in the UK, USA and China to understand new and existing features of the software. As an Information Developer, I wrote clear and concise help documentation, installation instructions, and release notes for the software. I also helped to plan when to write and complete the documentation in order to adhere to the release schedule. As a QA tester, I wrote and executed test plans for new features that covered all aspects of the feature's functionality.

March 2011-June 2012: Postdoctoral Research Fellow in Statistics, Southampton Statistical Sciences Research Institute, University of Southampton, Southampton, UK

My work involved high-level statistical research into the design and analysis of computer experiments, and the subsequent implementation of new methodology in research code. I collaborated with researchers from different disciplines at the University, Dstl and the Met Office. I presented the results of my research at international conferences. I also acted as a teaching assistant in undergraduate tutorials.

Oct. 2007-June 2009: Postgraduate Demonstrator, School of Mathematics, University of Southampton, Southampton, UK.

Duties included providing teaching assistance for undergraduate mathematics and statistics tutorials and grading undergraduate work. This work involved guiding students on their approach to homework problem sheets and instructing students on how to use S-Plus, R and Minitab statistical programs.

Sept. 2008-Dec. 2008: Researcher in Statistics, Pfizer UK, Sandwich, Kent, UK.

This was a CASE award placement with both the Non-clinical Statistics and Computational Chemistry groups. Aim of research was to derive empirical rules for structure-property relationships to be used in predicting how functional group changes within series will alter the melting point, solubility and the propensity to form polymorphs of organic compounds. The work involved searching for relevant compounds and gathering data from the Cambridge Structural Database.

June-Oct. 2006: Researcher, eCrystals (<http://ecrystals.chem.soton.ac.uk>), University of Southampton, Southampton, UK.

My work was focused on single crystal X-ray structure determination, and uploading of such data, including these results, to the eCrystals Crystal Structure Archive database.

EDUCATION

Ph.D.: University of Southampton, Southampton, UK, 2006-11.

Area of Research: Statistics, chemistry, chemometrics, regression analysis, design of experiments, optimal design, sequential design.

Thesis Title: "Optimal and Sequential Design for Bridge Regression with Application in Organic Chemistry".

B.Sc.: University of Southampton, Southampton, UK, 2003-06.

Degree: Chemistry with Mathematics.

Result: First class honours.

AS/A levels: Barton Peveril College, Eastleigh, Hampshire, UK, 2001-03.

Result: A grade in AS-level Geography; A grades in A-level Biology, Chemistry and Mathematics.

GCSEs: Wyvern Technology College, Fair Oak, Eastleigh, Hampshire, UK, 1996-2001.

Result: A* grades in Art, Double Science, English Language, Geography, German, Mathematics and Textiles Technology; A grades in English Literature and Statistics.

ACHIEVEMENTS

Sept. 2012-Present: Volunteer at John Keble Primary School teaching year 1-6 pupils everything from basic computing to programming in Scratch and Python.

July 2014: Event lead for IBM Think.IT, an event for year 8 girls to encourage them to pursue careers in technology. The event was very well received by the students, teachers and IBM senior management. The mayors of Southampton and Romsey visited and I was interviewed for an article in Computer Weekly.

May 2013-Jan. 2014: Worked on a project to redesign IBM's internal volunteer and activity management web application, as part of the user interface design team. My designs received very good feedback from the product manager and clients and have been taken forward for further development.

June 2012: Spring Research Conference (invited speaker), Harvard University, Cambridge, Massachusetts, USA. *Title of Talk:* Optimal and Sequential Design for Bridge Regression.

November 2011: Chemical and Biological Defense Science and Technology Conference, Las Vegas, Nevada, USA. *Title of Poster:* Calibration of Transport and Dispersion Models Using a Combination of Physical and Computer Model Data.

August 2011: Designed Experiments: Recent Advances in Methods and Applications, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, UK. *Title of Poster:* Optimal and Sequential Design for Bridge Regression.

October 2009: Design and Analysis of Experiments Conference, University of Missouri, Columbia, Missouri, USA. *Title of poster:* Optimal and Sequential Design for Bridge Regression.

August 2008: XXI Congress and General Assembly of the International Union of Crystallographers, Osaka, Japan. *Title of poster:* Application of Statistical Methods for the Understanding of Crystal Structures of Organic Solid Forms and Prediction of their Properties.

ADDITIONAL SKILLS

I.T. Proficiency:

HTML5, CSS3, JavaScript, jQuery

Powershell/Bash scripting

C++

Microsoft Office: Word, Excel, PowerPoint and Outlook.

Lotus: Notes and Symphony

S-Plus, R and Minitab statistical programs.

LaTeX document preparation system.

DITA XML authoring tool.

Other Skills:

Managing an individual, long term research project.

Time management and prioritisation.

Setting and achieving objectives.

Adhering to strict deadlines.

Attention to detail.

Library and internet based research skills.

Extracting important information from research.

Identifying problems and constructing innovative solutions.

Evaluating results for improvement.

Ability to work as part of a team and individually.

Scientific and mathematical report writing.

Communicating complex ideas at a level appropriate to the target audience.