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**Education**

MSc Bioinformatics, Polyomics and Systems Biology. August 2015 - present

MSc. Information Technology Systems University of Strathclyde

BSc. Biophysics 2(i) University of Leeds

Tavistock School, Devon. A levels - Mathematics, Physics, Chemistry

8 O levels.

**Research Experience**

**University of Glasgow Research Assistant** Prof.J.R.Barker

This post was a two year post as part of a European collaboration in Bioelectronics.

I developed image analysis and pattern recognition software for the interpretation of large data sets collected from scanning tunneling microscope(STM) and atomic force microscope(AFM) experiments. Algorithm

I Designed and conducted experiments to investigate the patterning of biomolecules onto substrates for electronic devices. This included fluoresce microscopy, STM, AFM techniques. Making flat gold surfaces, and using cleanroom techniques to etch patterns onto the substrate.

**University of Glasgow Research Assistant** Prof Neil Isaacs

This was a two year post in the protein crystallography group and was funded by IBM.

I was responsible for porting CCP4 ,a large suite of programs developed independently by protein crystallography laboratories throughout Europe onto the IBM (CMS) mainframe platform. This involved rewriting low level libraries including some underlying machine code. I worked in close collaboration with other developers in UK and Europe to standardise the CCP4 package. This enabled it to be platform independent and made it easier for new programs to be integrated.

**University of Strathclyde MSc Project**

Develop a scheduling system for flexible manufacturing machine tools to reduce costs by removing bottle necks.

**University of Leeds BSc project**

Built a model of newly determined protein structure and analysed structural and functional implications.

Cooper, J.M., Shen, J., **Young, F.M**., Connolly, P., Barker, J.R., and Moores, G. (1994). The imaging of streptavidin and avidin using scanning tunnelling microscopy. J. Mater. Sci. Mater. Electron. *5*, 106–110.

**Skills**

**Research Skills**

* Knowledge,
* Analysis, critical thinking , problem solving
* Research methodology
* Statistics

**Computer skills**

* I have successfully developed software for a wide range of complex projects in several different languages. I have the ability to easily learn new systems and languages.
* I have been responsible for the support and training of user groups this has included trouble shooting, produce new code or fixes and documentation for group members.
* Languages Java, C, Python, Fortran, R. Unix/Linux , bash shell scripting,
* Database: Developed MySQL DB for drug screening. Developed a NoSQL DB to integrated omics data
* Platforms: HPC, Cloud computing (EC2), Unix Cluster(centos ) .

**Organizational Skills**

* I had to become an organised project manager, prioritizing time between a diverse range of competing projects with minimal support or supervision from above to achieve results.

**Communication skills**

* I gained a reputation as an enthusiastic and active team member on international committees for collaboration for the development of a major research software suite.
* I completed a Vocational Qualification in Training and Development achieving a high level of presentation and training skills.
* I have excellent communication and team working skills developed through my experience in a large variety of roles both in work and a voluntary capacity.

**Career History**

**Urban Sanctuary Gardens Business Owner 2007- 2014**

Garden Design and soft landscaping business.

* Set up successful and flexible business that fitted into around life style.
* Satisfied clients meeting agreed budgets and deadlines.
* Negotiated with clients and subcontractors.
* Learnt business skills necessary to succeed.

**Career Break 1997 - 2007**

During this time I focused on my three children and being a proactive member of my community.

* Chair of Playgroup, running a voluntary management committee. Included interviewing and employing two new play leaders, dealing with the Care Commission and Fire Service. Negotiating for new premises.
* Member of SPIG, leading projects t0 make improvements to the school playground.
* Woodcraft youth leader and organizer.
* Member of School council
* Completed Business Start Up and Bookkeeping courses. Pacific Institute STEPS personal development course.

**Management Introductions 1996-1997**

Trainee within training company providing action training for graduates and managers.

* Conducted training needs analysis on clients.
* Designed, delivered and evaluated training events.
* Gained SVQ level 3 including assessor units D32 and D33.

**University of Glasgow Research Assistant** **1993-1995**

* Managed diverse projects in software development, research and image analysis.
* Advised and supported staff and students in the use specialized research equipment and software; keeping abreast of current developments in this field.

**Self Employed Consultant 1992**

* Negotiated and completed a project to design, write and install software to save time and improve accuracy in complex calculations related to oil fields.
* Adapted research software to run on new platform over University network.
* Provided training materials and supporting documentation.

**University of Glasgow Consultant**  **1992**

* Adapted research software to run on new platform over the University network.
* Provided training material and supporting documentation.

**University of Glasgow Research Assistant** **1989-1991**

This position was within the protein crystallography group and was funded by IBM

* Ported major research software (CCP4) onto IBM mainframe and Unix Platforms.
* Active member on national and European committees and working parties for the development of collaborative research software.
* Trained supported group members in all aspects of IT; acted as trouble shooter for group providing code fixes and new code as required
* Acquired and installed new hardware onto the university network.