Angus Maidment

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I am a highly numerate, goal-oriented MSc graduate with excellent interpersonal skills. I am seeking opportunities which will use and develop the skills I have accumulated in programming, high performance computing and applied mathematics. I am tenacious, adaptable and enthusiastic.

WORK EXPERIENCE

Science and Technology Facilities Council (Rutherford Appleton Laboratory)   Oxfordshire, UK
Scientific Computing Graduate   May 2015 - Present
Undertaking projects with different research groups within the Scientific Computing Department (SCD) on a rotational basis.

- **Project 3 (April 2016 - Present)**
  Software Engineering Group
  Keywords: **Continuous Integration (JenkinsCI), Single Sign On (Shibboleth), web server config (Apache HTTPD), Linux (CentOS 7).**
  My primary task on this project was to implement single sign on (SSO) for the JenkinsCI build service provided by the Software Engineering Support Centre (SESC), an EPSRC funded project to encourage uptake of modern tooling and best practices by scientists who generate software. The implementation consists of an apache reverse proxy server which authenticates users via Shibboleth and then passes them to be logged in to Jenkins.

- **Project 2 (October 2015 – April 2016)**
  Peta Scale Computing and Storage Group (Tier 1)
  Keywords: **Object storage (Ceph), configuration management (quattor/aquilon), Linux (SL6/7), systems architecture, filesystems, storage.**
  Project involved design and prototype implementation of a storage backplane using the Ceph object storage system to contribute toward the development of the Data Analysis as a Service project in collaboration with ISIS neutron and muon source. Outputs of this project included a functioning prototype CephFS cluster, documentation on necessary steps toward a production service, and a successful purchase order for new hardware for the service (~£100k).

- **Project 1 (May 2015 – October 2015)**
  Research Infrastructure Group
  Keywords: **HTML, Python, Linux (RHEL), authentication, documentation writing, systems administration.**
  Upgrade of online portal for the National Service for Computational Chemistry Software (NSCCS). Involved integration of several software components (IBM Platform Application Centre, IBM Websphere, IBM Platform Load Sharing Facility) with existing legacy software components and custom authentication methods. Deliverables on this project consisted of a successful upgrade of the portal on the production server, an installation guide and additional documentation detailing pitfalls and hints/tips to be used across the organisation.

- Other noteworthy activities:
  - Actively involved in public engagement – demos/talks/tours to school children, visiting groups.
  - Promoted STFC successfully at several university graduate recruitment fairs.
  - Respective 2nd place awards for both the ideas discussion group session and the hackathon at the Software Sustainability Institute Collaboration Workshop 2016 for "MatchMakedemia", a service which suggests new collaborations to researchers.
  - Convener of Friday morning coffee talks in SCD

Rockstar North Ltd.   **Edinburgh, UK**
Game Tester   January 2015 - April 2015
- Testing Rockstar Games products, cross platform, at various stages of development.

- Duties include working on test plans, identifying novel bugs and writing and processing bug reports using Microsoft Office and in-house software.

Belford Research Ltd.   **Edinburgh, UK**

Optics Assistant   September 2012 - November 2012 (Intermittently on casual basis in following years)
- Assisting with the performance of laser induced damage threshold (LIDT) testing and certification, reporting to the company director.
- Duties included operation of sensor and apparatus control software, monitoring laser beam characteristics, data post-processing, precision equipment adjustment and calibration, post-test micrograph analysis, and general cleaning and repair work.

The Bongo Club   **Edinburgh, UK**

Door Supervisor   January 2014 – January 2015
- Door supervision and other security duties at The Bongo Club in Edinburgh.

EDUCATION

University of Edinburgh   **Edinburgh, UK**

MSc High Performance Computing, 69% average   2013 - 2014
- Degree course focused on creating high performance software for scientific computing, using parallelisation tools and techniques, based at the Edinburgh Parallel Computing Centre (EPCC).
- **Courses:** Message passing programming, threaded programming, parallel numerical algorithms, parallel programming languages, HPC architectures, performance programming, parallel design patterns, software development, HPC ecosystems, advanced parallel programming.
- **Key projects:**
    - Performance profiling and optimisation of a molecular dynamics code.
    - Parallel image reconstruction using C and MPI and subsequent performance analysis. Implemented overlapping communication and computation.
    - Implementing the actor pattern in C as a standalone library to be used to implement a biology model.
- **Dissertation project:** "*Mesh Independent Wear Modelling*" – This project implemented the "*Locally Density Adaptive Algorithm"* for reconstructing surfaces from point clouds and applied it to data generated by discrete element method simulations in order to improve the resolution of wear modelling. Written in C++ and using the Computational Geometry Algorithms Library (CGAL). Undertaken in conjunction with DEM Solutions Ltd.

University of Bath   **Bath, UK**

BSc (hons) Physics with Computational Physics, 2:2   2009 - 2012
- **Relevant Courses:** Computational physics courses in Maple and C/OpenGL, fluid dynamics, superconductivity including HTSCs, numerical simulation techniques, optional additional credit module in financial accounting.
- **Final Year Research Project:** "*Device Modeling for Cuprous Oxide Solar Cells"* – This involved writing a numerical model using built in solvers in Matlab that could be used to simulate cuprous oxide solar cells and assess the influence of ion diffusion on their current-voltage characteristics.

Boroughmuir High School   **Edinburgh, UK**
- **ABB** at Advanced Higher in physics, maths (pure) and chemistry respectively, **AAAAA** at Higher in maths, chemistry, physics, French and English.

SKILLS, ACTIVITIES & INTERESTS

Languages: Conversational proficiency in French.

Technical Skills:
- Functional knowledge of C, C++, Linux, MPI, OpenMP, Python.
- Narrow experience with CUDA, High Performance Fortran, Coarray Fortran, Fortran 90.

Certifications & Training: Certificate for Licensed Premises Staff (Scotland), Full UK driving License.

Activities: I have been attending meetups/talks/demonstrations with the Data Science Oxford group, and took the Coursera machine learning course with fellow members.

I was a keen rugby player at school and university; I hold a Black Belt in Judo and have extensive experience in submission wrestling. I was named Snowboarder of the Year 2012 by my university snowsports club Bath Snowsports. I won the gold medal at the 2011 British Universities and Colleges Olympic Weightlifting championships in the -105kg category.

Acting Career: I featured as a background actor alongside Brad Pitt in *World War Z* (2013).