Angus Maidment

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I am a highly numerate, goal-oriented MSc graduate with broad experience in HPC. 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.

PROFESSIONAL EXPERIENCE

Rolls Royce Vibration University Technology Centre, Imperial College London **London, UK**

Research Software Engineer August 2016 – Present

Working with researchers on scientific simulation code with occasional infrastructure/devops duties.

- I am mainly working on a Fortran95 codebase – mainly refactoring and performance work (OpenMP, investigation of MPI/GPGPU).
- I have been involved with the implementation and improvement of a python framework for regression testing of changes to the code.
- I designed a prototype system for centralised compilation of the code using different dependency/tool chains in Docker containers which would integrate with source code management, allowing automated testing and reporting, and continuous integration.

Science and Technology Facilities Council (Rutherford Appleton Laboratory) **Oxfordshire, UK**

Scientific Computing Graduate May 2015 – July 2016

Undertaking projects with different research groups within the Scientific Computing Department (SCD) on a rotational basis.

- **Project 3 (April 2016 – July 2016)**
  Software Engineering Group
  Keywords: **Continuous Integration (JenkinsCI), Single Sign On (Shibboleth), web server config (Apache), 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).
- **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.
- **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).
- 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.

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).
- **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) and boost. Undertaken in conjunction with DEM Solutions Ltd.

University of Bath Bath, UK

BSc (hons) Physics with Computational Physics, 2:2 2009 - 2012

- **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, Fortran, Visual Studio.
- Narrow experience with CUDA, Docker.
- **Certifications & Training**: Certificate for Licensed Premises Staff (Scotland), Full UK driving License.

Activities: I am a regular on the tech meetup scene (Hacker News Readers, and in house events at Imperial College). In 2015 I attended 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).