Matthew Power

Curriculum Vitae

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Employment

June 2014 – present
Graduate/Junior Python Developer, *Hogarth Worldwide*, London.
Worked on the development and maintenance of Zonza, a digital asset management (DAM) system. Gained experience with Python, Django, and PostgreSQL. Zonza is backed by Vidispine, which I worked in detail with. During my first year on the Client Engineering team, I developed a bulk upload tool, which was used as part of the onboarding of two of the highest value clients for the business. Subsequently I moved to a development team, and developed a new reporting system for the application, as well as identifying and tackling performance issues on the platform. Additionally, I was a maintainer of a number of shared internal libraries.

Education

2009 – 2013
Physics, MPhys (Hons), *University of Southampton*, 2:2.

2002 – 2009
A Level, GCSE, *St. Clement Danes School*, Chorleywood.
- Physics: **A**
- Maths: **A**
- Chemistry: **A**
- Further Maths: **B**
- GCSEs, 6**A***s, 3**A**s, 2**B**s

Project

Title
Exploring the INTEGRAL Archive: Period Determination of HMXBs

Supervisors
Prof. P.A. Charles, Prof. A.J. Bird

INTEGRAL, the International Gamma Ray Astrophysics Laboratory, is a satellite launched in 2002. Containing four primary instruments, INTEGRAL looks at sources in energy ranges approximately between 5 keV and 10 MeV, from hard X-rays to Gamma rays. The INTEGRAL archive contains data for many sources that have not been fully explored. The project focused on finding periodicities in a number of High Mass X-ray Binary sources, using both Lomb-Scargle spectral analysis and Phase Dispersion Minimisation. This involved numerical analysis with Python, using NumPy and SciPy.

Dissertation

Title
Energy Input into the Upper Atmosphere

Supervisor
Prof. B.S. Lanchester

The upper atmosphere is a complicated region, sandwiched between the turbulent dense troposphere beneath and the harshness of the magnetosphere and solar environment above; both regions influence its composition, structure and dynamics. The dissertation explored the interaction between these regions, and described some practical applications.

Experience

July 2011
8 weeks
Summer Project, *University of Southampton.*
This was a summer project placement in the Physics department working on a citizen science project for data of the Aurora Borealis. This involved manipulation of the data recorded from scientific instruments, moving it from backup tape to computer and processing using MATLAB.

June 2010
12 weeks
Administrator, *Informatiq Consulting*, Watford.
My role involved matching CVs posted on sites such as Monster and Jobsite to a job specification. Also, this included headhunting on LinkedIn.

Programming Languages

Python   Django, APIs, scripting, scientific data analysis, NumPy, SciPy
JavaScript   Backbone

Technologies

Frameworks	Django, Flask, Falcon	OS	Ubuntu, Arch, Windows
Databases	PostgreSQL	Queues	RabbitMQ & Celery
Cloud	AWS - EC2, S3, Route 53	CI	Jenkins, Travis
Typesetting	LaTeX	VCS	Git, Github

Interests

Humanism   Treasurer of the AHS (ahsstudents.org.uk) between 2012-2014, a national umbrella organisation for non-religious students.
On behalf of the British Humanist Association, have attended conventions in Amsterdam and Utrecht for youth humanism.
President of University of Southampton Atheist Society 2012 – 2013 (atheistsoc.susu.org). Vice President 2011 – 2012, and Secretary 2010 – 2011.

Sports   Sailing and Skiing.

PC hardware   Built my own computer from components, and built machines for friends and family.

Software   Contributions to free & open source software and my own projects https://github.com/mthpower

References

Hogarth Worldwide
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Tutor
Prof. B.S. Lanchester
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Additional references available on request.