Simon Walker

Curriculum Vitae

PERSONAL DETAILS

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EDUCATION

Ph.D. in Astrophysics Sep 2009 - Sep 2013
University of Warwick

"Analysis and optimisation of ground based transiting exoplanet surveys". Through my work with a prototype telescope, I developed analysis pipelines, with which I characterised the noise properties of the system, and influenced the final design of the instrument. I also applied analysis techniques, such as bootstrapping and regression, to planets found with the WASP project to compute the occurrence rate of Jupiter-like planets.

Masters degree in Physics Sep 2005 - Sep 2009
University of Warwick

Achieved a 2:1 (hons). This included a project modelling astrophysical events, using C.

WORK EXPERIENCE

Senior Research Engineer June 2017-present
The Manufacturing Technology Center, Full-time

As part of the *Data and Information Systems team*

Post-doctoral Research Associate Jan 2014-June 2017
University of Warwick, Full-time

I continued to work on the NGTS project, designing and implementing software for the main analysis pipeline. This included routinely processing 70GB of data per night to search for extrasolar planets, along with assessment, monitoring and visualisation of the analysis pipeline. I have also been leading an international distributed team in the further development of data techniques and tools, involving members in multiple time zones, and coordinating our efforts.

SKILLS

Primary languages	Python (9+ years), C/C++ (9+ years), SQL (5 years)
Other languages	Rust, HTML, CSS, Javascript, LaTeX
Libraries	Numpy, Matplotlib, Tensorflow, Scikit-learn
Techniques	deep learning, MCMC, regression, machine learning, statistics, visualisation
Operating systems	Linux, macOS, BSD, Windows

REFERENCES