

James Jackman

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Profile

I'm a researcher with over 7 years of experience in data science, scientific programming and pipeline development. A determined and analytic professional, I've led multiple projects that extracted and transformed raw data for analysis, wrote algorithms to identify signals and trends using statistical methods, and derived actionable insights from complex datasets. I have authored 9 journal papers from this work, co-authored over 35 papers as part of international collaborations, and communicated our work to both stakeholders and colleagues in reports and at conferences. Creative and resourceful, I am now looking to apply my analytical skills to new challenges.

Experience

Postdoctoral Research Scholar

Arizona State University, Tempe, AZ, USA

August 2020 – Present

- Developed and executed multiple research projects to characterise the magnetic activity of stars through statistical analysis of large data sets, resulting in 3 publications and winning over \$300,000 in federal grant funding
- Built and implemented data pipelines (Python, Excel, SQL) to transform raw data into prepared datasets, and detect signals in sets of hundreds of thousands of data points. Shared my knowledge with colleagues in our team to aid their own training and development
- Prepared complex results from large-scale data analyses using data visualisation tools and communicated these to stakeholders through journal papers, reports and presentations at scientific meetings, resulting in actionable insights
- Authored the writing of presentations discussing analysis methods and results, as part of a team for large projects and individually for smaller ones, presenting 14 talks to international audiences

Graduate Researcher

University of Warwick, Coventry, UK

September 2016 – July 2020

- Directed a survey of stellar outbursts using data sets of hundreds of thousands of stars, resulting in the formation of a new research group within an existing collaboration, 6 publications and the successful completion of my PhD thesis
- Led the construction of an ETL process (with Python and SQL) that collected and prepared data for consumption by code written by other teams. This resulted in a single catalogue of required information, as specified through communication with customers and colleagues

Education

PhD in Physics, University of Warwick

July 2020, Coventry, UK

Masters in Physics with Astrophysics, University of Manchester

July 2016, Manchester, UK

Bachelors in Physics with Astrophysics, University of Manchester

July 2016, Manchester, UK

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Skills

- Python (7+ years) and the scientific stack (e.g. NumPy, SciPy, Pandas)
- Jupyter Notebooks (3+ years)
- SQL, MySQL (2+ years)
- MATLAB (2+ years)
- Microsoft Office suite; Excel, Outlook, Word, Powerpoint (6+ years)
- Developing budget plans and financial reports
- Data analysis, mining and cleaning
- Statistics, statistical techniques, statistical analysis
- Planning and executing research projects
- Business writing and communication
- Presenting and communication of complex ideas at external conferences
- Bringing long-term research projects to a successful conclusion
- Hypothesis testing
- Data visualization

Other

- **Driving:** Full US driving licence
- **Languages:** English (Native)