



Rhys Shaw

PhD Student in Astrophysics

Bristol, UK

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Experience

Data Science Intern

2024-09-01

Aleph Insights, London, England

Worked on building a internal LLM client tool. This interacted with any LLM API, stored all data locally and allowed for attaching relevant documents from local the network.

Postgraduate Teaching Assistant

2022-06-01

University of Bristol, Bristol, England

Lab demonstration, assisting 2nd year undergraduates in completing their research projects. This required a detailed working knowledge of a number of physics experiments projects. I then accessed them through conducting interviews and marking formal reports.

Other Experience

DataAid Committee Member

Date

Company, Location

DataAid is a yearly student-led hackathon that aims to provide data science support to charities and non-profit organizations. As a committee member, I am responsible for helping to organize events, selecting charities that we are able to help on a technical level, as well as providing technical support to the hackathon.

Astrophysics Developer Group co-Lead

Date

Company, Location

I am a co-lead and organiser of the Astrophysics Developer Group at the University of Bristol. This an open group of PhD students and academics that meet weekly to discuss software development in their research. This includes discussing wins and issues that are coding related and a small talk/tutorial each week about a specific topic. Personally I have given talks on basic Web-development, parallelisation and self-hosting.

LOC member for 2025 Simulation Based Inference for Galaxy Evolution Conference

Date

Company, Location

I was a member of the local organizing committee for a small conference in Bristol. This was focused on Simulation based inference in astrophysics. I help chair discussions and assisted in the running of the conference.

Publications

Collaboration, E., Zatarain, T. M., Fotopoulou, S., Ricci, F., Bolzonella, M., Franca, F. L., Viitanen, A., Zamorani, G., Taylor, M. B., Mezcuca, M., Laloux, B., Bongiorno, A., Jahnke, K., Stevens, G., Shaw, R. A., Bisigello, L., Roster, W., Fu, Y., Margalef-

Summary

Third Year Astrophysics PhD Student at the University of Bristol, with a focus on Machine Learning and Computing.

Education

PhD in Astrophysics

2026

University of Bristol, Bristol

Master of Science in Data

2021

Intensive Astrophysics

Cardiff University, Cardiff

Bachelor of Science in Physics with Astrophysics

2020

University of Bristol, Bristol

Skills

Programming languages

Python

JavaScript

LaTeX

Fortran

C++

Rust

Typst

AI/ML

Pytorch

TensorFlow

HuggingFace

Transformers

Tools

Linux

Git

Docker

HPC

MongoDB

HTMX

FastAPI

Bentabol, B., ... Soubrie, E. (2025, March). *Euclid Quick Data Release (Q1). The active galaxies of Euclid*. arXiv. <https://doi.org/10.48550/arXiv.2503.15320>

Shaw, R. A., Fotopoulou, S., Birkinshaw, M., Maddox, N., & Stewart, H. (2025). DRUID: source detection and deblending in astronomical images with persistent homology. *RAS Techniques and Instruments*, 4, rzaf6. <https://doi.org/10.1093/rasti/rzaf006>