Matthew Docherty - INDUSTRY CV TEMPLATE

London, UK matthew.docherty.21@ucl.ac.uk www.mdochertyastro.com

Education University College London, UK (UCL)

Centre for Doctoral Training (CDT) in Data Intensive Science (DIS)

Ph.D. Astrophysics, 2021-2025

Topic: AI-based Statistical Inference for Cosmology

University of Glasgow, UK (UofG)

MSci. Physics with Astrophysics - GPA: 20/22 (1st Class Hons.), 2016-2021

Focus: Astrostatistics, Quantum Theory, Software Development

Academic Research

Masters Thesis, Institute for Gravitational Research, UofG, 2021

Title: "Importance Resampling using Deep-learning for Gravitational Waves"

Skills:

Vacation Scholarship Research Project, Carnegie Trust (Remote), 2020

Title: "Thermodynamic Filament Diagnostics using IRIS² Inversion Code"

Skills:

Summer Research Project, Solar Physics Group, UofG, 2019

Title: "Spectral Data Analysis of IRIS Off-limb Prominence Observations"

Skills:

Awards and Funding

Doctoral Training Stipend, UCL CDT DIS, 2021-2025 (£70,000)

Thomson Experimental Thesis Prize, UofG, 2021 (£1,300)

Undergraduate Vacation Scholarship, Carnegie Trust, 2020 (£1,800)

RISE Germany Research Scholarship, AIP Potsdam, 2020 (£1,950)

Summer Research Scholarship, Royal Astronomical Society, 2019 (£1,200) Astronomy 2 Prize, UofG, 2018 (£150)

Tannahill Bequest (Best Astronomy Lab Student), UofG, 2017 (£150)

Computing Skills

Programming: Python (4 years), MATLAB (6 years), IDL (2 years)

Scripting: Unix-CLI, Bash, C-shell Systems: Linux, MacOS, Windows Databases: Pandas, SQL, Excel

Formatting: LATEX (TikZ/Beamer), Markdown, Word, HTML Pipeline: SSH, VS Code, JupyterLab, Git/GitHub, Unix-Screen

Deep-learning: Tensorflow-GPU, PyTorch, CUDA

Publications Thermodynamic Filament Diagnostics using IRIS² Inversion Code

Conference Poster, Royal Astronomical Society ECR Poster Competition, 2020

https://ras.ac.uk/poster-contest/matthew-docherty

Memberships Member, American Physics Society, 2021-Present

Member, Institute of Physics, 2020-Present

Member, European Astronomical Society, 2020-Present

Fellow, Royal Astronomical Society, 2020-Present

Experience STFC Data Intensive Science Summer School, Durham University, 2021 Chief Scientific Editor, 1451 Undergraduate Review, UofG, 2020-2021