

Dr. Laura Prichard

Senior Data Scientist in Healthcare

Data Scientist working in healthcare with astrophysics PhD, 11 years technical experience, responsible AI expert, excellent communication & leadership skills.

EMPLOYMENT

Senior Data Scientist, UCLA Health, June 2022-present (promoted Aug 2023)

- Custom model development & machine learning for healthcare use cases
- Responsible AI expert, model documentation lead, project management

Staff Scientist, Space Telescope Science Institute (STScI), Jul 2021–Jun 2022

- Data Scientist, *Hubble Space Telescope's* Imaging Spectrograph (STIS) team

Postdoctoral Researcher, STScI, September 2018–July 2021

- Expert: data pipeline & software development, calibrations, coding, galaxies

CERTIFICATIONS + EXPERIENCE

Certifications: [Databricks ML](#), [John Snow Labs NLP](#), Epic Clinical Data, [IBM ML](#)

Coding: 11 years scientific coding (Python/C++ etc.). Develop software tools for complex data challenges (data extraction, calibration, analysis, visualization, cleaning, engineering, pipeline development). Version control with git/GitHub.

Statistics & Modeling: Handle large, multi-dimensional data sets. Supervised/unsupervised machine learning & natural language processing (NLP) experience. Regression & parameter fitting to find features/test hypotheses.

Project Leadership: Led & managed research and outreach programs from design, successful proposals, data collection, analysis, publication, promotion. Proven ability to deliver high-quality tangible outcomes to schedule.

Technical Communication: Extensive technical writing experience for many audiences. 21 peer-reviewed publications, 4 as lead author, 250 citations.

Talks: 22 global talks (inc. Harvard, Yale, Oxford, STScI, international meetings).

Collaboration: Excel at working in diverse, cross-cultural, international teams.

EDUCATION + AWARDS

DPhil/PhD in Astrophysics, University of Oxford, October 2014–June 2018

- Doctoral Researcher (DR) Honorable Mention Award, DR Awards, 2018
- Hintze Scholarship, University of Oxford, 2014–2018

MPhys & BSc (first class honors), University of Leeds, 2010–2014

- Bolton Prize in Astrophysics, for top graduating student, 2014

Exchange year BSc/MPhys, University of California, Santa Cruz, 2012–2013

LEADERSHIP + SERVICE ROLES

Co-Chair, Inclusive Astronomy 2 Local Organizing Committee, April 2019–July 2020. Published [recommendations](#). Received STScI DEI Award.

Led Women in Astronomy Forum initiative, 2018–2019. Ran survey on conference attendance at STScI. Published [Astro2020 white paper](#).

Elected member of Invision Working Group, STScI, November 2018–2020. Ran DEI initiatives at STScI. Co-created the STScI Outreach Mentor Program.

Elected President, Christ Church Graduates (Oxford), 2015–2016. Ran committee of 30 people. Campaigned for inclusion & support of all students.

Service roles at STScI: hiring committees, Telescope Allocation Committee support, ran several journal clubs/talk series, postdoc representative.

CONTACT + LINKS

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GitHub: github.com/lprichard

References: available on request

SKILLS SUMMARY

Top Technical Skills:

- Expert:
 - Python/Jupyter/pandas/git/shell
 - Machine learning/modeling
 - Statistical analysis
 - Data engineering/cleaning
 - Data calibration/visualization
- Experience in:
 - Epic Clarity, Caboodle, Cogito
 - Databricks/AutoML/NLP
 - IDL/SQL/C/C++/HTML

Top Soft Skills:

- Project leadership/mentoring
- Communication/collaboration
- Innovation/problem solving

MENTORING + SUPERVISION

Supervisor to undergraduate

intern, Maria Mitchell Observatory, 2019–2021. Published paper.

Mentor to three interns, UCSC

Summer Internship Program, 2016.

Tutor to six master's students,

University of Oxford, 2015–2016.

PUBLIC IMPACT

Public talks: e.g., [Responsible AI at UCLA Health](#), [Hubble Space Telescope YouTube](#), [SAZERAC 2020](#)

Press: [Independent on Sunday](#)

(2015), [Yesterday's Island](#) (2019),

[Christ Church Matters](#) (p46, 2021)

Volunteering: LA County Science

Fair Review Committee (2023),

[Thread](#) (2020-23), [DataKind](#) (21), [FSC](#)

Outreach: Astronomy on Tap, Stargazing Oxford, telescope nights