DOMINIC TAYLOR | CV

dom.taylor111@gmail.com ◇ (+44)7541 243224 ◇ Website ◇ LinkedIn

---

PROFESSIONAL SUMMARY

PhD researcher with a track record of delivering **high-value data projects**, **automating** large-scale analyses, and generating **actionable insights** from complex datasets. Experienced in communicating technical results to diverse audiences and leading cross-functional initiatives. Expanding expertise in SQL and machine learning to tackle real-world data challenges, seeking to apply analytical, technical, and problem-solving skills in data science or technology consulting.

EDUCATION

PhD Astrophysics | **Durham University** | **Durham, UK**   (10/2022 – 03/2026)
Thesis title: Galaxy evolution through gas kinematics of submillimetre galaxies and changing-look AGN

MPhys Astrophysics | **University of Liverpool** | **Liverpool, UK**   (09/2017 – 06/2021)
Grade: First-Class Honours
Thesis title: What influences the physical processes of galaxy formation?

SKILLS

Programming & Data Tools: Python (Pandas, NumPy, SciPy, Matplotlib, Astropy, Streamlit, TensorFlow, Keras), SQL, Bash/Linux, Git, JavaScript/HTML/CSS.
Data Analysis & Modeling: Statistical analysis, machine learning, visualization, reproducible pipelines.
Web & Application Development: Responsive websites, interactive dashboards, user-focused design.
Communication & Collaboration: Present complex data to diverse audiences, lead team projects, independent learning.
Languages: English (Native), Spanish, Italian (Conversational), French (Beginner).

KEY PROJECTS & WORK EXPERIENCE

Data engineering and automation

- Built scalable Python pipelines to process terabytes of data, cutting manual effort by $\sim 80\%$ and ensuring reproducible results across hundreds of datasets.
- Led international projects managing resources equivalent to £1.4M, overseeing design and execution of large-scale data workflows.

Software development and data tools

- Created Python packages for spectral modeling and automated archive retrieval, reducing data access time from hours to minutes.
- Released publicly with Git version control, supporting reliability and accessibility for collaborative projects.

Public COVID Data Application

- Developed a Streamlit app (COVID-19) visualizing global COVID-19 data with automated updates, enabling interactive comparisons across countries and time.
- Provided a clear, user-friendly tool for exploring pandemic trends, supporting research and public awareness.

Startup website development

- Designed and launched a responsive website for a growing tutoring startup (TutorMia), contributing to a 200% increase in client acquisition.
- Maintained and iteratively improved the site with modern web development practices and Git-based workflows.

DATA TRAINING

Completed **5+ advanced courses** and workshops (Google, MIT, Kaggle, Imperial, Durham), covering **ML, SQL, Bayesian inference, AI engineering**.

- Gained hands-on experience with **TensorFlow, PyTorch, and transformers**; applied Bayesian inference to real datasets.
- Reduced analysis time by mastering **SQL querying**; built and deployed **ML models** in practical exercises.
- Earned **certificates of completion** (Google ML Crash Course, Kaggle SQL, MIT ML).

LEADERSHIP, COMMUNICATION & OUTREACH

- Delivered 2 international presentations to audiences of **70–300+**, translating complex technical topics for diverse groups.
- Led university football club as **captain**, managing a **50-member team**, planning events, and overseeing club finances.
- **Chaired** PhD journal club, facilitating discussions and knowledge-sharing among peers.
- Solely operated high-value research equipment (**£10,000+ nightly responsibility**), ensuring data quality and reproducibility under time-sensitive conditions.
- Engaged in public outreach, presenting scientific topics to schools and general audiences, reaching **hundreds of participants**.