Exciting Faraday Undergraduate Summer Experience (FUSE) paid internship opportunities for summer 2026.

Studying a STEM degree? Wondering what career to pursue? Interested in finding out more about the battery sector? Keen to spend time with a dynamic community of pioneering battery researchers seeking to find solutions to support a fully electric future?

The Faraday Institution is offering a total of 48 internships, for undergraduate students to spend 8-weeks working on battery related projects.

Project title:

Developing a non-ambient temperature stage for operando XRD studies of pouch cell formation cycles

Project description:

Battery formation cycling is the initial controlled charging and discharging process that stabilizes the battery electrode materials, and determines the battery's long-term capacity and lifespan. The FAST project is investigating the formation process to reduce accelerated degradation in battery cells in industry. Typically, formation processes are carried out at elevated temperatures (40°C), but the effects on atomic structure of battery materials needs to be further investigated. One method for doing so is operando X-Ray Diffraction (XRD) at elevated temperatures, which is used to monitor structural changes in active material within the battery while charging/discharging. Batteries would typically undergo heating in large temperature-controlled chambers during formation, however it is currently difficult to perform operando XRD measurements at elevated temperatures.

This project would assess different methods to heat pouch cells undergoing operando XRD and develop a non-ambient heating stage to further understand the effects of temperature during formation cycling.

Supervisor: Harry Gillions

University: University of Warwick - WMG

Location: *In-person – University of Warwick*

Start date: The internship is a full-time role for 8 weeks [Between June 8th – completed by 21st August 2026].

Eligibility:

- Be registered full-time undergraduate student from a UK university.
- Undertake the internship within the years of their undergraduate study (i.e., not in final year or during a subsequent Masters' programme).
- Not have been a FUSE intern in a previous year

Funding:

A salary of £13.45/ hour across the UK or £14.80/ hour in London will be provided. This will be determined by the working address of the appointee, not the university's location. The funding is provided by the Faraday Institution.

Additional activities:

During the FUSE internship you will be able to attend Faraday Institution cohort events which will focus on a variety of topics to further develop your understanding of career opportunities in battery sector. At the end of the programme, you will be invited to to share a poster about your work and prizes will be awarded.

Application:

In order to apply for a Faraday Undergraduate Summer Experience (FUSE) 2026 internship, please complete the following survey: FUSE Internship 2026 - FAST – Fill in form

Please also complete this survey so we can keep you informed about future Faraday opportunities, including other FUSE internships that may need additional support with recruitment.

Diversity

The Faraday Institution is committed to creating a dynamic and diverse pool of talent for the fields of battery technology and energy storage.

University of Warwick EDI Statement:
https://warwick.ac.uk/fac/arts/english/people/barrydrliz/seniortutor/equality_diversity_and_inclusion_at_warwick_002.pdf