David Kelly

Email: david.kelly9.dk@gmail.com
Phone: +353871045620
Address: 11 Castle Court, Taghmon, Co. Wexford
https://www.linkedin.com/in/DavidKelly

Profile

Final year Theoretical Physics student from the University College Dublin with a 3.70 GPA (First class honours). A hard-working student seeking a challenging graduate opportunity to apply my strong theoretical foundation and passion for physics. Strong problem-solving and critical thinking skills developed through coursework and various projects.

Education

University College Dublin, BSc (Hons) Theoretical Physics (Currently 3.70 GPA) **Sept 2021-June 2025**

Relevant modules completed include:

- **Nuclear Physics:** Explored fundamental nuclear processes, including radioactive decay, interaction of radiation with matter, fission, fusion, and reactor technologies, with a focus on theoretical frameworks like Gamow theory and Fermi theory.
- **Mathematical Fluid Dynamics:** Gained an understanding in advanced mathematical models to analyse fluid behaviour and solve complex flow problems.
- **Advanced Lab:** Learned technical skills and tools such as LabView for automated data acquisition and Python for data and error analysis. Completed variety of labs. Also developed a research project and delivered comprehensive project reports and oral presentations. Project can be seen here.
- **Numerical Methods for Partial Differential Equations:** Applied computational techniques to solve real-world problems involving partial differential equations using numerical methods.

Work Experience

Tyndall National Institute, Research Intern **June 2024 – August 2024**

- Worked on a 12-week summer research project entitled "Turbidity – Correction for Raman Spectroscopy in Diffusive Media: Simulations and Phantom Validation" with the biophotonics research group.
- This project involved creating and running Monte Carlo Simulations and analysing experimental data using MATLAB.
- Undertook various workshops including laser design, biophotonics and poster presentation skills.
- Created and presented a poster disseminating my research to academics at the institute. Poster can be seen here.

Sulzer Pump Solutions, Quality Control Intern **June 2022 - August 2022**

- Managed and maintained quality control procedures, ensuring compliance with industry standards, company policies, and EU directives like ATEX.
- Developed and implemented quality assurance protocols, test plans, and inspection criteria to streamline processes and improve documentation.
- Led a project to create and modify measurement check sheets for water pump components, enhancing skills in project management, public speaking, and technical tools like SAP, Excel, and engineering drawings.

Mathematical Society UCD, Public Relations Officer **June 2024 - Present**

- Elected public relations officer of the 60th session of UCD Mathematical Society.
- Organise and promote events, talks, and workshops for the UCD Mathematical Society, enhancing student engagement and society visibility.
- Manage communication channels, including social media and email campaigns, to effectively promote society activities and increase membership.

Technical Skills

- Proficient programming skills in Python, MATLAB, LabVIEW, R, Latex, Excel and using GitHub to share files.
- Experienced in conducting data analysis, simulations, and automating processes using advanced tools such as LabVIEW, MATLAB and Python.
- Able to work on multiple projects simultaneously and capable under pressure.

Personal Achievements

- Received an entrance scholarship to UCD for my outstanding Leaving Certificate results (625 points).
- Received Wexford CBS Past Pupils Association Student of the Year 2021 for best Leaving Certificate results.
- Received Wexford CBS Tony Boland Award for best Junior Certificate results.
- Qualified for the UCD exchange programme and spent a semester in the University of Colorado, Boulder, USA.