Dylan Byrne

dybyrne@tcd.ie
+353 86 454 3221
Dublin, Ireland
https://www.linkedin.com/in/dylanbyrne1234

Education

Trinity College Dublin — Dublin, Ireland
BSc in Physics — 2022-present, Average Grade From Previous Years of study: 2.1
Expected overall grade: 2.1

St. Colmcilles CS — Leaving Certificate
554 points in Leaving Certificate, Irish State Examinations — Including H2 grades (80-89 %) in Physics, Math and Accounting

Experience

Throughout my studies in the Physical Sciences at Trinity College Dublin, I have consistently achieved a 2.1 grade (60-70), demonstrating my strong grasp of complex scientific concepts. Modules such as electromagnetic interactions, quantum mechanics, optics, and oscillations have not only honed my problem-solving and analytical skills but also allowed me to apply theoretical knowledge to practical experiments and simulations. My consistent academic performance reflects my ability to approach challenges with discipline and precision, ensuring a thorough understanding of the material while balancing a rigorous workload.

In addition to my strong foundation in physics, my decision to pursue the nanoscience moderatorship has further honed my interdisciplinary skills, particularly through the completion of modules in organic, inorganic, physical, and analytical chemistry. These courses have enhanced my understanding of material properties and chemical reactions at the molecular level, complementing my physics knowledge. Through laboratory experiments, I have developed practical hands-on skills in conducting scientific investigations, including the use of advanced instrumentation, data collection, and analysis techniques. This has strengthened my attention to detail, experimental accuracy, and ability to work in a lab environment, making me proficient in both theoretical analysis and experimental application across multiple scientific disciplines.

I am currently undertaking an internship at the Borguet group in Temple University, Philadelphia. The group focuses extensively on porous materials, particularly metal- organic frameworks (MOFs), with strong emphasis on absorption, desorption and catalysis. My internship at the group will provide me an insight into how the surface changes when a MOF is made in different ways, how it interacts with other chemicals, and how tiny structural defects could help us learn more about their surface. The ultimate goal is to better understand and control these surfaces for real-world use in sensors, filters, or storage materials.

Job Experience & Projects

Physics at Trinity Open Day Volunteer — November 2024/25
I volunteered at the open day to attract new students to physics. I found the experience very rewarding as it allowed me to practise explaining the knowledge I have gained over the last two years.

Trinity Entrepreneurial Society Ambassador — September-May 2023
Organised the annual Dragon's Den event. My major role was contacting a team of judges for the event. I also organised sponsorship for the entire event.

Skills

- **Tools & Technologies**: Python Experience, LaTeX
- **Soft Skills**: Teamwork, Communication, Problem Solving

Certifications & Awards

Wicklow Half Marathon Finisher — February 2024
time: 2hrs 3mins

Londonderry Half Marathon Finisher — August 2024
time: 1hr 55mins

Dublin Half Marathon Finisher — September 2024
time: 1hr 53mins