

Physics undergraduate at the University of Sheffield. Skilled in programming and electronics, with a passion for problems requiring multi-disciplinary knowledge. Keen to further develop skills applying theoretical principles to reach practical solutions - particularly for radiometric devices & photonics. Equipped to deliver solutions in an experimental R&D setting, using both physics based and practical skills.

Employment

June 2023 - June 2024 **Design Physicist Intern**, *AMETEK Land Instruments International*

- Advanced R&D, using radiometric theory and simulation to prototype and diagnose Cassegrain optical devices. For example, reducing glare using baffled surfaces.
- Crafted bespoke integrating spheres and hot plates for uniform thermal imaging, requiring practical ability to achieve theoretical goals. Used across the globe for extending product lifespan.
- Analysed and visualised 40,000+ internal data files, resulting in massive quality control improvements by implementing changes to instrument parameters and thresholds, assisting the delivery and quality of 7 figure orders.

I am proud of this opportunity to contribute to Land, world leaders in non-contact temperature measurement solutions, furthering innovation and performance.

October 2022 - present **Volunteering**, *Student Staff Committee, University of Sheffield*

Volunteering for the Student Staff Committee, facilitating feedback from students to lecturers & faculty. Demands clear and effective communication, and good interpersonal understanding.

Education

- 2021 - present **BSc Physics with Year in Industry**, *University of Sheffield, Predicted First Class*
- 2019 - 2021 **A levels**, *The Sixth Form College, Colchester, Physics (A) Maths (A) Electronics (A) Chemistry (A)*
- 2014 - 2019 **9 GCSEs, 1 BTEC**, *Maltings Academy, Average 7.6 with 9 in Physics. Dist* in Business.*

Academic Projects

- Undergraduate computational research of 2D nanophotonic semiconductor devices and waveguides, with Sasha Tartakovskii PhD research group, University of Sheffield

Technical and Personal skills

- **Programming Languages:** Python (numpy, pandas, etc.), JavaScript/HTML/CSS.
Also familiar with C (& other low level), Matlab, VBA.
- **Industry Software:** Excel (& macros), Tableau, Autodesk Fusion 360, Adobe CS/CC.
- **General Business Skills:** Documentation and presentation, Works productively with a team, Understanding of business aims and objectives.

Interests and extra-curricular activity

- Data Analysis projects; using APIs & data banks (e.g. World Bank Open Data) with Python to investigate interesting/useful datasets.
- Electronic projects, using Arduino, Raspberry Pi, and creative LED signage.
- 3D Printing, CAD, RC hobbyist; using Fusion 360 for 3D printing and modelling projects, building racing drones.
- Musician; play Saxophone, Piano and Bass guitar. Toured Germany with jazz orchestra.
- Sports; enthusiastic about field hockey and squash.