William Hampshire

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Physics undergraduate at the University of Sheffield, with extensive programming knowledge and a passion for data science & analytics. Keen to further develop skills in analysis and presentation, particularly advancing SQL knowledge with more "big data" projects, to drive decision making. Equipped to deliver valuable insights in a data analytics role, using both physics skills and data literacy.

Employment

June 2024

June 2023 - Design Physicist Intern, AMETEK Land Instruments International

- o Analysed 15,000 logging scripts in Python, revealing a disparity, hinted at by experimental data. Discovered the source and presented findings, preventing future issues & increasing product reliability.
- Analysed and visualised another 10,000 logs, resulting in updates to internal parameters and pass thresholds for 5 product lines, significantly enhancing quality control.
- O Developed robust serial logging Python application, essential for determining usability of an instrument before additional resources are expended, by enabling multiple simultaneous measurements.

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

present

October 2022 - 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.

Technical and Personal skills

- Programming Languages: Python (numpy, pandas, etc.), SQL, JavaScript/HTML/CSS. Also familiar with C, Matlab, VBA.
- Industry Software: Excel, Tableau, Git, Adobe CS/CC.
- O General Business Skills: Presentation and documentation skills, Works productively with a team, driving progress, Understanding of business models, operation and goals.

Personal Projects

Following projects are further detailed on williamhampshire.com. Scripts & queries can be found on my github page.

2024 Sheffield Local Election - data mining & visualisation

- Extracted raw html from sheffield.gov.uk, and created Python script to iterate through constituencies.
- O Using sqlite3, executed queries within Python to create tables of data scraped, then queried the data.
- O Visualised using Tableau bubble chart showing total votes for each party, and bar chart showing the most "popular" candidates - published on Tableau Public.

Brief Geographical History of the Levant Region - collation and visualisation

- O Collated maps from accurate sources, created shapefiles using QGIS to trace borders to polygons.
- Utilised database editor to prepare the data for visualisation in Tableau.