Mail
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Web
drwardrope.github.io

LinkedIn
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git
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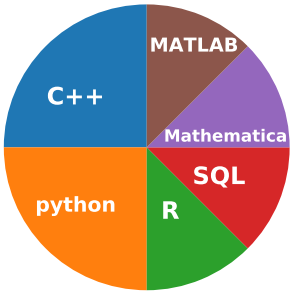
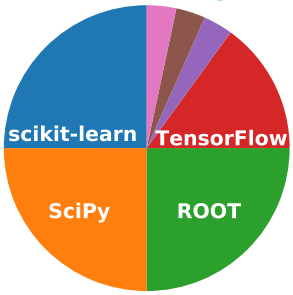
Programming



Packages



Languages
English Native speaker
German Goethe B2 Zertifikat

Hobbies

David Wardrope

Data Scientist

I am a data scientist and particle physicist with over ten years of experience of advanced statistical analysis, machine learning, algorithm creation and software development. I am a proven problem-solver and team-leader, who can communicate with diverse audiences.

Experience

01/11 - Now **Research Associate** University College London, UK

Carrying out innovative particle physics research programme with petabyte-scale datasets from the ATLAS experiment at the Large Hadron Collider.

Data Analysis
Devising new statistical analysis techniques and algorithms to detect rare processes in complex, large datasets, including the world's most sensitive search for the important Higgs boson pair production process.

Leadership
Manage a team of thirty physicists, with a track record of innovative analysis yielding to timely and meaningful results. Convenor of ATLAS UK Higgs group, co-ordinating cross-university efforts.

Communication
Reported results and represented the ATLAS collaboration at major international conferences with several hundred participants. Written thirteen scientific papers that were published in prestigious journals.

Informing Decision Making
Using Monte Carlo simulation to show that upgrades to ATLAS systems are necessary for the long term success of the experiment. These improvements are now a major part of a 300 MChf upgrade project.

Commercial Experience
Supervised students undertaking a data science project with online clothing retailer ASOS, to use recommender systems to reduce product returns: a major cost driver for the business.

09/09 - 12/10 **Research Associate** Imperial College London, UK and CERN

Commissioning and early data analysis with CMS experiment.

Time-Critical Commissioning
Played a key role in successful early experimental runs, carrying out analysis using data-mining, simulation and visualization techniques to identify problems in data and develop timely solutions.

Algorithm Design
Developed an improved pattern recognition algorithm for event reconstruction, leading to better experimental sensitivity in many analyses.

Education

2005 - 2009 **Ph.D in Particle Physics** Imperial College London, UK and CERN

2001 - 2005 **MSci (First Class Honours) Physics** Imperial College London