

# Professional Experience Beyond Academia

# Introduction and Background

- PhD in Experimental Nuclear Astrophysics at University of York, England
  - Thesis - Hoyle State Rotational Excitation Studied via beta-triple-alpha Angular Correlations
- Postdocs at University of Edinburgh and FRIB, Michigan State University
  - Direct reaction measurements with charged particles and neutrons
- Quantitative Researcher in Finance
  - Asset pricing models and portfolio optimisation

# Why the Change?

- Mainly - I wanted to choose the city where I settle down.
- Other small reasons:
  - work-life balance,
  - constant stress about the next step.

# Challenges in Transition

Finding out what is it that you want to do

- Non-academic nuclear physicist
- Data-scientist (many many industries to choose from)
- Finance quant
- Something else..

# Challenges in Transition

## Making a non-academic CV

- Expertise with ROOT or particle detectors or vacuum systems no longer helped.
- I had to shift the emphasis from nuclear physics to computation and statistics.
- Many versions — a new one for each application.

# My Experience

## Looking for a job in Quant Finance

- Searched for people on LinkedIn with physics background who were doing quant finance and contacted them.
- Did some brushing up of statistics, linear-algebra, probability theory, etc.
- Found some competitions online that mimic the true work of a quant.
- Attended MeetUps for networking.
- It took about 100 applications and 5 months to land 4 interviews and the first job.

# My work now

- Research latest methods and develop models for asset pricing.
- Given the predictions of future asset prices, construct optimal portfolio with different objectives such as maximise the return, minimise the risk, or somewhere in between.
- The main challenges are:
  - Research is not so transparent in this industry.
  - Things are more fast-paced and dynamic.
  - The marketing aspect.

# Tips to get started

If you are thinking of leaving

- Have the conversation with yourself about your priorities: lifestyle, location, stability, salary, aspirations, and passion for physics.
- Start networking at least a year before you are thinking of leaving.
- Translate your CV into industry specific language.
- Send your CV to a few places where you definitely don't want to join (to maybe get a few practice interviews).



Thank you for your attention!