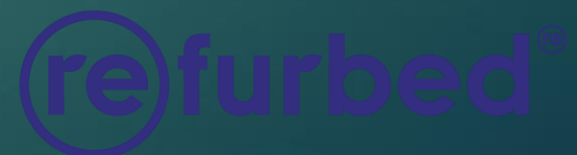


# Careers in industry

EARLY CAREER RESEARCHERS IN PARTICLE PHYSICS IN AUSTRIA – HEPHY – 23.05.2024

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REFURBED



# Introduction

## Outline

- My personal experience
- Refurbed
- Transferrable skills
- Pro and cons

## Questions

- How easy is to switch from academia to industry?
- For whom is it preferable?

# My professional history



Master in Physics at  
University of Rome Sapienza



PhD in theoretical Physics at  
the University of Graz



Data science internship at  
Refurbed



Data scientist at Refurbed

# Refurbed – rethink new!

Online marketplace specializing in refurbished products.  
Our best selling category is consumer electronics devices.



## Common data science projects in an e-commerce settings:



Recommender systems  
– personalize web and  
e-mail experience



Dynamic pricing –  
adapt price to demand



Forecasting of cost and  
revenue



Marketing efficiency  
analysis

# Transferable skills for data scientists



Statistics: data science is an extension of mostly Bayesian statistics with algorithms



Scientific coding: coding in C, C++ or even python is common for graduate physicists



Analytical thinking



Mathematical proficiency: people don't use formulas in industry



Experimental design

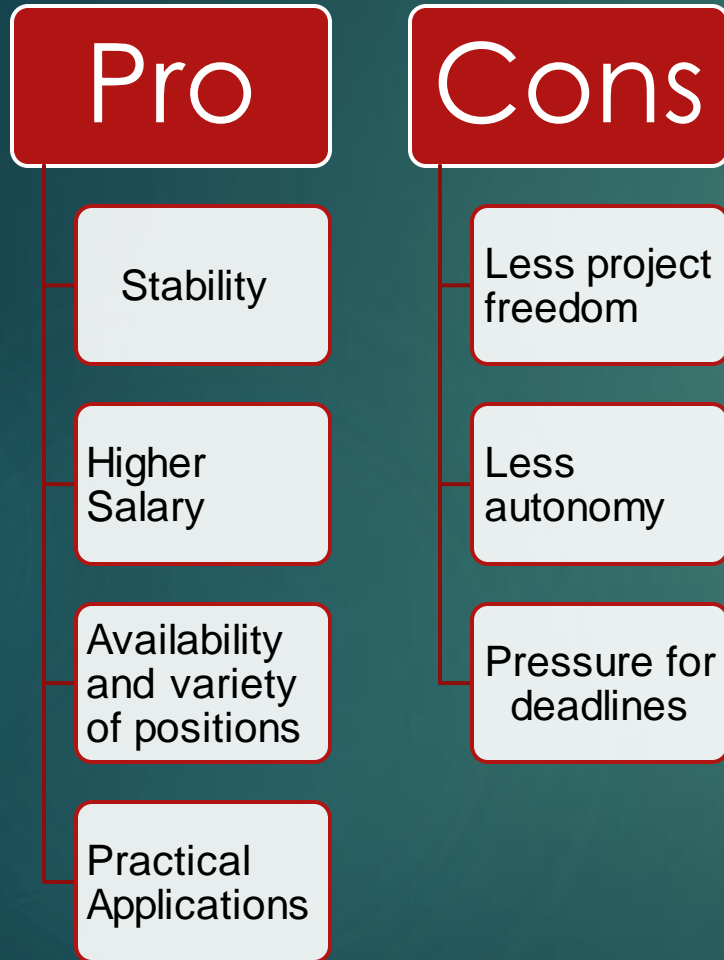


Problem solving



Data literacy: able to explore and understand complex datasets

# Pro and cons: industry vs academia



# Tips for applying for jobs

Find best transferrable skills:  
e.g. statistics and problems  
solving for DS

Prepare a professional CV (filter  
out papers and conferences,  
max 2 pages long)

Study the topics you want to  
work in (Coursera, datacamp  
etc.)

Do projects on your own, curate  
a public git (for DS use open  
datasets, like on Kaggle)

Apply for all levels, also on  
Junior and Intern level, and  
switch when saturating





# Further reading

- ▶ [Labour market perspectives for PhD graduates in Europe](#)
- ▶ [The over-education wage penalty among PhD holders: a European perspective](#)
- ▶ [PhD holders propensity to work in research-intensive sectors: evidence from Italy](#)