

# JAMES SHINNER

## Particle Physics PhD | Researcher & Programmer

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Geneva, CH | London, UK



## EXPERIENCE

### Doctoral Researcher

#### CERN

01/2020 - Ongoing | Geneva, CH

- Long term attachment at CERN while conducting PhD research.
- Collaborating with a large international team.
- Involved in experimental operations of the ATLAS trigger system.
- Worked to redesign the trigger configuration database, achieving speed-up of 100-1000x in editing and loading configurations.

### Graduate Teaching Assistant

#### Royal Holloway, University of London

09/2018 - Ongoing | London, UK

- Leading tutorial classes on linear algebra, probability, and statistics.
- Marking for courses in mathematics and general relativity.

### Research Intern

#### Durham University

07/2017 - 09/2017 | Durham, UK

- Summer internship using physics simulations to model the behaviour of glyphosate, a commonly used herbicide.

### Mathematics Analyst Intern

#### NMi Metrology & Gaming

07/2016 - 08/2016 | Bangor, UK

- Applied probability and statistics to test the expected return of physical/online slot machines for regulation and licensing purposes.

## EDUCATION

### PhD, Elementary Particle Physics

#### Royal Holloway, University of London

09/2018 - Ongoing

- Investigating a novel technique to use the top quark to measure the asymmetry between matter and antimatter.

### MSci, Natural Sciences (Maths & Physics)

#### Durham University

09/2014 - 06/2018

- Awarded 1st class honours.
- Final dissertation on 'Machine Learning for Higgs Boson Measurement'.

## SUMMARY

I am well-versed in mathematics, statistics, and machine learning, and have extensive experience working with Python and SQL. I am looking to work on machine learning and big data in the fields of technology and finance.

I am currently completing a PhD in Particle Physics at Royal Holloway, University of London, working on the ATLAS experiment of the Large Hadron Collider at CERN, giving me experience of applying analytical techniques to some of the world's largest datasets.

## SKILLS

### Programming

Python	SQL	Pandas	Oracle
Scikit-learn	TensorFlow	Git	
CI/CD	Linux		

### Research

Statistics	Machine Learning
Academic Writing	Public Speaking

## LANGUAGES

English	Native
German	Intermediate (B1)
French	Beginner (A1)