

# KIERAN MOLLOY

A highly competent data scientist involved in the Python and R open-source community. Passionate about unsupervised learning techniques.

Looking for a role at a market-leading firm where machine learning can drive business value via groundbreaking analysis and interpretation of commercial data.



## CONTACT

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🌐 Kieran Molloy

## TECHNOLOGIES

### Programming Languages

Python R Scala Rust LaTeX

### Machine Learning Techniques

Decision Trees Deep Learning

Reinforcement Learning

Language Processing

Computer Vision

### Data Analysis

pandas dplyr tidyverse numpy

scipy SQL MongoDB scikit-learn

tensorflow keras

### Development

Linux/Debian Azure/AWS/GCP

Docker git Apache Spark

### Statistics

Linear Inference Generalised LM's

Geostatistics Extreme Value Theory

### Languages

English      
German

## PUBLISHED PACKAGES

whitebeam 1.2 - decision trees

rekishikon 0.2 - NLP language detection

cdg 0.3 - critical difference generator

tevt 0.1 - EVT threshold tests

## OTHER ACHIEVEMENTS

🏆 Highest Grade BSc Mathematics

## EDUCATION

- 📅 09/2020 - current  
📍 Lancaster University, Lancaster **MSc Data Science**  
**Distinction (exp) - 83%**  
Produced several open-source packages, in collaboration with Professors  
Conducted in-depth extreme value analysis of fire insurance claims  
Led a team of 5 creating robust statistical analysis for chemical supplier Lubrizol  
Academic Representative, giving feedback to course leaders and representing cohort
- 📅 09/2017 - 04/2020  
📍 MMU, Manchester **BSc Mathematics**  
**1st Class Hons - 78%**  
Produced bleeding edge work solving Train Scheduling using new machine learning techniques  
Led a team of 7 in a year long group project analysing Chinese population statistics  
Modelled train energy-efficiency using PDE and ODE methods  
Developed excellent communication skills via hosting weekly help sessions

## WORK HISTORY

- 📅 06/2021 - 09/2021  
📍 Gousto, London **Data Scientist**  
MSc Placement statistically modelling factory throughput influences
- 📅 10/2020 - 01/2021  
📍 Lubrizol, Remote **Data Scientist**  
Led a team of 5 over a 4 month project, delegating tasks and programming frameworks  
Performed Robust modelling (RANSAC, Theil Sen, Ext.Random Trees) increasing model accuracy by 5% whilst increasing resilience to outliers  
Educated team on use of version control and project planning MS Projects
- 📅 04/2020 - current  
📍 Tesco UK PLC, St Helens **Night Replenishment Team Leader**  
Rotating and presenting Fresh stock daily, ready for purchase decreasing waste by 6%  
Accepting, checking and sorting incomes deliveries, increasing range availability by 10%
- 📅 02/2019 - 12/2019  
📍 Starbucks EMEA, Wigan **Shift Supervisor**  
Decreased Drive-Thru service times on-shift by 11%  
Led the team of 20 on two promotional product seasons  
Trained 4 new members of staff, increasing satisfaction by 4%

## SOFT SKILLS

### Innovative:

If the feature does not already exist in a package, I have created my own and published it open-source

### Communication:

Throughout each of my roles I have demonstrated my ability to connect with people of all ages and backgrounds, especially during my time at Starbucks during my MSc.

### Critical Thinking:

My degree and open-source projects required a high level of critical thinking including researching, analysing data and making recommendations.

### Tenacity:

Writing several reports and training for triathlon events demonstrates my perseverance for success, whether that be a good race, or great model results for a report

## GENERAL SKILLS

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### **Innovative:**

If the feature does not already exist in a package, I have created my own and published it open-source

### **Communication:**

If the feature does not already exist in a package, I have created my own and published it open-source

### **Critical Thinking:**

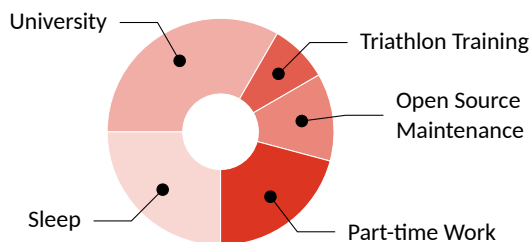
If the feature does not already exist in a package, I have created my own and published it open-source

### **Leadership:**

If the feature does not already exist in a package, I have created my own and published it open-source

## A DAY IN THE LIFE

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## ANOTHER SECTION

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### **Subsection 1**

Demonstrate subsections.

### **Subsection 2**

Subsection are also bold face but a smaller font then section. They also omit the rule.

## MSC MODULES

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### *Statistics*

Generalised Linear Models  
Linear Inference  
Extreme Value Theory

### *Programming*

Programming for DS  
DS Fundamentals  
Data Mining  
Applied Data Mining

### *Spatial Data*

Geostatistics  
Geoinformatics

### *Dissertation*

MSc Project with Gousto


## PUBLICATIONS



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Achieving a good looking spacing can be tricky. For empty pagestyles where the full width is available use `\pubforcefullwidth` to force the publication list to take up all the available space. The (relative) lengths reserved for date, journal and links can be set with the parameters `\pubdatelength`, `\pubjournallength` and `\publinklength` as in `\setlength{\pubdatelength}{0.15\linewidth}`.


### The turbulent gas structure in the centers of NGC 253 and the Milky Way

 **N. Krieger**, A. Bolatto, E. Koch, A. Leroy, E. Rosolowsky, F. Walter, A. Weiß, D. Eden, R. Levy, D. Meier, E. Mills, T. Moore, J. Ott, Y. Su, S. Veilleux

 2020       The Astrophysical Journal Vol. 899, Issue 2, id.158

 [ADS](#), [arXiv](#)

### The molecular ISM in the Super Star Clusters of the starburst NGC253

 **N. Krieger**, A. Bolatto, A. Leroy, R. Levy, E. Mills, D. Meier, S. Veilleux, F. Walter, A. Weiß

 2020       The Astrophysical Journal Vol.897, Issue 2, id.176

 [ADS](#), [arXiv](#)

### The Molecular Outflow in NGC 253 at a Resolution of Two Parsecs

 **N. Krieger**, A. Bolatto, F. Walter, A. Leroy, L. Zschaechner, D. Meier, J. Ott, A. Weiß, E. Mills, S. Veilleux, M. Gorski

 2019       The Astrophysical Journal Vol.881, Issue 1, article id. 43, 20 pp

 [ADS](#), [arXiv](#)