

# James Adams

I'm a driven and detail-oriented career switcher with a passion for data science. With a background in biomechanics, statistical analysis and teaching, I'm looking to challenge myself while putting my data skills to good use.

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 <https://www.linkedin.com/in/jmablog>    <https://github.com/jmablog>

## Experience

### Associate Lecturer - Statistics and Research Methods

Feb 2022 - June 2022

*London Metropolitan University*

- Designing and delivering lectures and practical tutorials on statistics and research skills for first year undergraduates and Masters degree students
- Setting and assessment of coursework at undergraduate and Masters level
- Instituted and managed a department wide switch to modern statistical applications and their delivery to students

### Teaching in Higher Education Work Placement

Oct 2020 - Oct 2021

*London Metropolitan University*

- Delivering lectures, tutorials, and assessments in modules including statistics for sports science, biomechanics, sports therapy, and business studies

### Sports Therapist Placement

Oct 2019 - Jan 2020

*Clinic4Sport*

- Providing pitch side first aid for Polytechnic FC and Civil Service FC during match games, alongside pre- and post-game sports therapy treatments such as sports massage, stretching, and injury advice
- Delivering sports massages at large sporting events, including the London Triathlon 2019, Prudential Ride100 2019, and the Royal Parks Half Marathon 2019

### Sports Therapist Placement

Oct 2019 - Apr 2020

*NFL Academy, London*

- Assisting the therapy team for the NFL Academy, a new initiative training young players a US college football career
- Included assisting with pre-training treatments such as stretching and taping, assisting with pitch side first-aid when required, and delivering supervised post-training treatments such as sports massage, rehabilitation exercises and injury assessments

## **Personal Trainer**

May 2012 - Sept 2019

*JMA Training*

- 1-1 personal training with clients from a wide variety of backgrounds and fitness levels/experiences, delivering in-depth knowledge of all exercises and how best to implement them, with the ability to adjust on the fly as required
- Regular assessments of client expectations and goals, designing and implementing fitness programs with constant tracking and evaluation while providing motivation, encouragement and inspiration

## **Chief of Operations**

May 2012 - Feb 2017

*Parkour Generations*

- General management of the company and Chainstore Gym & Parkour Academy facility. Responsibilities included KPI tracking, oversight of financial records and budgeting, staff management, and liaising with local councils, schools, and national governing bodies for bookings
- As a coach, also regularly led training classes for participants of all ability levels, in both indoor and outdoor environments, using a high level of creativity and excellent communication skills to teach complex movements and techniques

## **Enforcements Section Team Leader**

Jan 2010 - May 2012

*HM Courts & Tribunals Service, Royal Courts of Justice*

- Leading on the day to day running of the Enforcement Section of the High Court, managing seven staff, reporting regularly to Senior Civil Service management and the Judiciary, monitoring, compiling and analysing KPIs via the daily statistics for the office, prioritising and managing workload for staff, dealing with customer complaints and managing staff attendance and performance

## **Education**

### **Data Science**

Nov 2021 - Feb 2022

*General Assembly*

- Data cleaning, exploration, and analysis in Python using NumPy, Pandas, and scikit-learn
- Data visualisation with matplotlib and Seaborn
- Modelling with regression, classification, and clustering machine learning techniques
- Investigating seasonality and trends in time series data and sentiment analysis in natural language

### **SQL For Data Science Specialisation**

Apr 2022

*UCDavis / Coursera*

- Using SQL to extract, filter, aggregate, join, and analyse data
- Using Apache Spark and DataBricks for distributed computing with Spark SQL

### **Data Visualisation**

May 2022

*freeCodeCamp*

- Using d3.js to create interactive data driven visualisations on the web

**MRes Sport & Exercise Science (Distinction)**

Oct 2020 - Oct 2021

*London Metropolitan University*

- Natural Language Processing in R to determine sentimentality in qualitative interview data

**BSc Sports Therapy (First Class Hons.)**

Feb 2017 - June 2020

*London Metropolitan University*

- Force platform data analysis with repeated-measures multi-factorial ANOVA in R
- Received Best Performance and Highest Degree Mark in Subject Group Award

**YMCA Level 2 Certificate in Instructing Parkour Fitness (Parkour Fitness Specialist)**

2015

*Parkour UK***International Diploma in Advanced Personal Training**

2012

*Premier Training International*

- Active IQ Level 3 Certificate in Personal Training
- Active IQ Level 2 Certificate in Fitness Instruction

**Level 1 Certificate in Coaching Parkour/Freerunning (A.D.A.P.T.)**

2011

*Parkour UK / 1st4Sport***Professional Memberships****Associate Fellow (AFHEA)**

Oct 2021 - Current

*AdvanceHE*

- Meeting the criteria of Descriptor 1 of the UK Professional Standards Framework for teaching and supporting learning in higher education

**Volunteering****Codebar Python Coach**

2022 - Present

*codebar.io*

- Helping beginners learn Python through paired coaching and tutorials, remotely and in-person

**Projects****Predicting Ultra Marathon Times***<https://github.com/jmablog/ultra-marathons-analysis>*

- Final project for General Assembly's data science course
- Predicting ultra marathon finishing times using Pandas, scikit-learn, and Seaborn

## tinieR: R package

<https://jmablog.github.io/tinieR>

- An R package to shrink image file sizes using the TinyPNG.com API
- Self-taught R language package development, providing learning on R package internals, unit testing, and continuous integration techniques

## SquatCam

<https://squatcam.vercel.app>

- Real-time joint position feedback for squatting using PoseNet machine-learning algorithm in ml5.js
- Languages used: Javascript, HTML, CSS

## Parkour Clinic

<https://parkour.clinic>

- Free online sports therapy consultations for parkour athletes
- Personal non-profit project started to continue sports therapy work while studying at Masters level, and to give back to the parkour community
- Hand-built site with Hugo, HTML, and TailwindCSS

## Writing

### Journals

### **Common Parkour Vault Techniques, Landing Styles, and Their Effects on Landing Forces**

2021

*Journal of Sports Sciences*, doi: 10.1080/02640414.2021.1978748

- Abstract published in special edition of the Journal of Sports Sciences following poster presentation at BASES Conference 2021
- Full paper and dataset also published online for the parkour community
- Winner of the **Human Kinetics Poster Presentation Award** at BASES 2021 Conference

### Self-published

### **Using the Expertise of Parkour Coaches to Understand Parkour Movement: The Kong Vault**

2021

doi: 10.13140/RG.2.2.33633.02402

- Qualitative study using the empirical knowledge of experienced parkour coaches to construct a deterministic model of a parkour movement
- Full paper and dataset published online for the parkour community

### **Pandoc Filters in Bookdown**

2021

[jmablog.com/post/pandoc-filters/](https://jmablog.com/post/pandoc-filters/)

- Tutorial post written for the R community explaining the use of Pandoc's Lua filters feature to manipulate the abstract syntax tree for post-processing of Rmarkdown documents

<https://jmablog.github.io/jamovi-worksheets/>

- Worksheets written to aid in learning statistics with Jamovi at undergraduate and Masters level, made available online and listed on the Jamovi community resources page

## Skills

### Data science

- Understanding of developing and tuning machine learning models for regression, classification, and clustering problems
- Detailed understanding of qualitative and quantitative research methodology
- Deep appreciation for statistical thinking and the importance of evidence-backed decision making
- Keen desire to contribute research to the greater scientific understanding of parkour in sport and exercise science
- Enthusiasm for effective, reproducible research, conveyed through concise narratives and compelling, beautiful visualisations

### Technical

- R (*proficient, including Tidyverse and base R approaches, and package development*)
- Python (*including Pandas, scikit-learn, Seaborn, statsmodels*)
- SQL
- Web (*HTML, CSS, JavaScript, d3.js*)
- git

### Sports therapy

- Experience delivering therapy and exercise sessions to an incredibly diverse range of patients and customers, including professional athletes, emergency service members, hard-of-hearing or deaf teenagers, and mentally and physically disabled children
- In-depth knowledge of human anatomy, biomechanics, and sports injuries
- Empathetic and patient-focused pedagogy of care

***References available on request***