

# MITCHELL WATTS

## Data Scientist

@ mitchcwatts@gmail.com 07871050406 London, UK  
in linkedin.com/in/mitchwatts/ github.com/Mitchwatts93 mitchwatts.co.uk



## EXPERIENCE

### Data Science Intern

#### Signal AI

Aug 2018 – Oct 2018

London, UK

- Worked to bring Data Science insight to empower the Marketing team by creating solutions required to process >1 million documents on a laptop.
- Detecting changes in language in the news. Achieved using an aligned word embedding approach to model temporal changes in the vector representation of words.
- Information Retrieval (IR) problem to generate ranked lists of news stories. Achieved by converting Wikipedia human descriptions to boolean queries using TF-IDF weighting methods and ElasticSearch queries.

### Assistant to London Programme Director

#### Educational Programmes Abroad

July 2012 – Jan 2019

London, UK

## PROJECTS

- Sentiment Analysis Explainer - `sentiment.cf/` - (available only 11:00-15:00 Mon-Fri GMT). Deployed using AWS.
- Matt Damon/Mark Wahlberg image classifier - `damonnet.ml/` - A toy project using FastAI to classify Mark Wahlberg or Matt Damon. Deployed using AWS.
- Thunderfit for Raman spectroscopy data analysis - Published on PyPi: `pypi.org/project/thunderfit/`.
- More projects and details are available at: `mitchwatts.co.uk/#work`

## EDUCATION

### Nano-Materials Physics PhD

#### UCL

Sep 2015 - Dec 2019

London, UK

**Publication:** Watts, M. C., Production of Phosphorene Nanoribbons, *Nature*, 568, 216–220 (2019), doi.org/10.1038/s41586-019-1074-x

### MPhys Physics

#### UCL

Sep 2011 - May 2015

London, UK

- Average marks: 85%.
- Received one of 31 Dean's list awards in UCL-wide graduation year (>4000 students).

### A (As) Levels

#### Brentwood County High School

Sep 2009 - May 2011

Brentwood, UK

Physics A\*, Maths A, Chemistry A, (Biology A, Further Maths C)

## LANGUAGES & PACKAGES

Python MATLAB  $\text{\LaTeX}$  Numpy Scipy Pandas Spacy  
Scikit-Learn PyTorch FastAI

## ABOUT ME

I'm a Physicist with a strong academic record, looking to break into a career in Data Science. I'm passionate about data and analysis, with a particular interest in Machine Learning techniques and NLP specifically. My motivation is demonstrated by having taught myself numerous courses whilst completing a PhD in Nano-Materials, as well as undertaking an internship and completing several small projects.

## SELF-TAUGHT COURSES

- Coursera - *Machine Learning*.
- Berkley - CS61A.
- Fast.AI - *Fast.AI course V3*.
- Coursera - *DeepLearning.AI (Sequence Models module)*.
- O'Reilly - *Hands-On Machine Learning with Scikit-Learn and TensorFlow*.
- Stanford - *Algorithms: Design and Analysis (partially completed)*.
- MIT/EDX - *Introduction to Probability - The Science of Uncertainty (partially completed)*.

## UCLU SOCIETIES

### Co-Founder & Treasurer

#### UCL Brazilian Jiu Jitsu

Nov 2013 – Jun 2015 London, UK

- Co-founded club, requiring extensive paperwork, fund-raising and organisation.
- Founded a volunteering programme within the society.

### Head of Events

#### UCL Muay Thai Society

Apr 2013 – Aug 2014 London, UK

- Organised a new competitive event in 2014 for UCL Varsity series.
- Organised international club tour in 2014, including travel and training provisions.

## INTERESTS

Cinema Football Running Cycling  
Bouldering Karate Muay Thai  
Brazilian Jiu Jitsu