

# MITCHELL WATTS

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## EXPERIENCE

### Data Science Contractor

#### proquo ai

Feb 2020 – Ongoing    London, UK

- Constructing a knowledge graph to infer a brand taxonomy.

### 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 a temporally aligned word embedding approach.
- Information Retrieval (IR) problem to generate ranked lists of news stories.

### 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: `mitchcwatts.com/#work`

## EDUCATION

### Nanomaterials Physics PhD

#### UCL

Sep 2015 – Mar 2020    London, UK

**Publication:** Watts, M. C. *et al.*, 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 (2.5 years)    Numpy    Scipy    Pandas    Matplotlib    Scikit-Learn  
tf.Keras    TensorFlow    PyTorch    AWS    FastAI    Spacy    MATLAB  
L<sup>A</sup>T<sub>E</sub>X

## ABOUT ME

I'm a physicist with a strong academic record, looking to break into a career in machine learning. 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 nanomaterials, as well as undertaking an internship and completing several small projects.

## SELF-TAUGHT COURSES

- Coursera - *Machine Learning*.
- Berkley - CS61A (Python comp-sci course).
- Fast.AI - Course V3.
- Fast.AI - NLP.
- O'Reilly - *Hands-On Machine Learning with Scikit-Learn, Keras and TensorFlow, 2nd Edition*.
- Stanford - *Algorithms: Design and Analysis (partially completed)*.
- MIT/EDX - *Introduction to Probability - The Science of Uncertainty (partially completed)*.
- Coursera - *DeepLearning.AI (Sequence Models module)*.

## UCLU SOCIETIES

### Co-Founder & Treasurer

#### UCL Brazilian Jiu Jitsu

Nov 2013 – Jun 2015

- 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

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

## INTERESTS

Bouldering    Cinema    Cooking  
Football    Cycling    Running