

## Employment

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### Research and Academia

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#### Research Assistant

Department of Politics and International Relations, University of Oxford  
Provided literature summary of manual and automatic text classification methods.

**Oxford, UK**  
Feb 2020 to Mar 2020

#### Research Assistant

Nuffield College, University of Oxford  
Developed fuzzy string matching algorithm for merging public records containing typos.

**Oxford, UK**  
May 2019 to Jun 2019

### Data Science

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#### Data Scientist

Kanto Systems  
In-house data scientist providing analytics and data visuals.

**London, UK**  
Dec 2019, ongoing

#### Quant Developer/Data Scientist

SBI Group, BITS, Japannext and Alpha  
Lead researcher at Equities and Derivatives Exchange at SBI Japannext.

**Tokyo, Japan**  
Apr 2017 to Sep 2018

### Teaching

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#### Introduction to Python for Social Science

Course Designer and Instructor  
Slides and materials available at: [muhark.github.io/dpir-intro-python](https://muhark.github.io/dpir-intro-python)

**Oxford, UK**  
Jan 2020, ongoing

#### Introduction to Statistics

Graduate Teaching Assistant, Oxford Internet Institute

**Oxford, UK**  
Oct 2019 to Dec 2019

#### EFL Teacher

IEC Nichibei

**Tokyo, Japan**  
Mar 2016 to Mar 2017

#### Teacher Intern

Language Link

**Moscow, Russia**  
Aug 2015 to Jan 2016

## Grants and Awards

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#### Graduate Research Grant

Merton College, University of Oxford  
Research grant of £1,500 secured to conduct survey experiment in the United States.

Oct 2020

#### DPIR Studentship

Department of Politics and International Relations  
Fully-funded studentship covering tuition and stipend for duration of three years of doctoral studies.

Oct 2019, ongoing

#### Exhibitionership

Merton College, University of Oxford  
Academic and financial award for high achievement in Preliminary Examinations.

Oct 2013

## Education

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#### DPhil in Politics

University of Oxford, Supervisor: Prof. Andrew Eggers  
Thesis on micro-targeted political advertising and measurement strategies for high-dimensional data.

2019, ongoing

**MSc Politics Research**

University of Oxford, Supervisor: Prof. Andrew Eggers

2018-2019

**BA (Hons) Philosophy Politics & Economics**

Merton College, University of Oxford

2012-2015

Focus on Quantitative Political Science, Microeconomic Theory, and Game Theory.

## Technical Skills

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**Programming**

(Items limited to those with production-grade implementation experience.)

- Languages: Python, R, bash, SQL, php.
- Roles: Data Science Lead, Full Stack Developer, Data Infrastructure Admin
- Skills: Docker, CI with GitHub, Systems Programming with Linux, Cloud Server Development and Deployment (AWS), Web Development on Nginx/MariaDB.

**Statistics**

- Econometric Modelling: GLM for Cross-Sectional, Time-Series and Panel Data
- Causal Inference: Survey Experiments, RDD, DiD, IV
- Other Specializations: Information Theory and Bayesian Statistics

**Machine Learning**

- Clustering: k-means, Hierarchical, Spectral and Clustering Metrics
- Tree-based Methods: Random Forest, Boosted Trees, BART
- Decomposition: PCA, t-SNE, UMAP
- Model Diagnostics: Hyperparameter Tuning, Fit Statistics, Algorithm Optimization.
- Deep Learning: PyTorch

**Natural Language Processing**

- Text Preparation: Syntactic Parsing, Tokenization
- Topic Models: LDA, Bayesian Hierarchical, STM, TopSBM
- Word Embeddings: word2vec, doc2vec, GloVe, BERT

**Composition**

- Visual: Advanced Data Visualization (static and interactive), Web Development
- Text: Markdown, Microsoft Office,  $\text{\LaTeX}$ , reveal.js, html, css.

**Languages**

- Native (C2): English
- Proficient (B2-C1): Japanese and Spanish

## Research

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"Estimating the Micro-Targeting Effect: Evidence from a Survey Experiment during the 2020 U.S. Presidential Election". *WIP*.

"An Unsupervised Text-as-Data Approach to Detecting the Effects of Electoral Constraints on Online Communication Strategies in New Zealand". *Master's Thesis*.