Michael T Moran, Ph.D.

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Experience

Technical Lead

March 2019—PRESENT

White Ops — *New York, NY*

- Led an international team to develop brand new solutions to stop advertising fraud on Connected TV platforms
- Presented impact results to internal and external stakeholders, supported sales initiatives for new clients, and developed cross-industry collaborations around stopping fraud across the entire ecosystem
- Integrated team best practices (OKRs, retrospectives, code reviews) and championed improved documentation processes

Data Scientist

January 2019—PRESENT

White Ops — *New York, NY*

- Created persistent models identifying fraudulent activity within massive event data (≈6B events per day), stopping millions from going to criminal operations
- Led counter-offensive against a large SSAI (server-side ad insertion) operation and abstracted anti-fraud solutions to cover operations beyond the originally surfaced one
- Identified technical evidence behind fraud operations through experimentation on real devices and using statistical models
- Improved internal device and IP classification tooling for Connected TV-related environments

Data Scientist

October 2017—December 2018

Gartner — *Stamford, CT*

- Built new search ranking package and model to improve search engine results (NDCG), including a 5% client engagement improvement from integrating a recommender system based on reading history
- Wrote robust data processing and model training pipelines (SQL and Pandas) and a post-training analysis framework to ensure the models were working sensibly
- Ran and analyzed A/B tests to ensure that changes to the models improved search KPIs (abandonment, engagement)

Data Science Fellow

June 2017—September 2017

Insight Data Science — *New York, NY*

- Developed a probabilistic Python and PyMC3 model to predict MTA subway ridership changes resulting from station openings and closings, where ridership shifts among stations and lines, which can be used to inform the impact of future closures
- Explored forecasting subway demand and crowding using multiple time series methods (additive models, ARIMAX)

Lecturer, Python for Physicists

June 2015, 2016

University of Notre Dame — *Notre Dame, IN*

- Designed and led lectures during the summer as part of the undergraduate research exposure program, including brand new courses on data analysis, Monte Carlo methods, and other practical applications of Python for experimental uses
- Introduced standard scientific stack packages (Numpy, Scipy, Matplotlib) to students and focused on teaching best practices

Education

University of Notre Dame

Notre Dame, IN

Ph.D. Nuclear Astrophysics — *November 2018*

M.S Physics — *August 2014*

Michigan State University, Lyman Briggs College

East Lansing, MI

B.S. Astrophysics, B.S. Physics, Mathematics (minor) — *May 2011*

Volunteering

CS106A: Code in Place

Section Leader — *April—May 2020*