# ACHILLEAS ATHANASIOU FRAGKOULIS

# Data Science, Experimentation & Machine Learning Engineering

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♥ London, UK

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# **EXPERIENCE**

#### Senior Data Scientist

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Mar 2020 - Ongoing

**♀** London, UK

- Prototyping solutions for end-to-end automated software packaging & QA
- Developed an **LSTM** based classifier to identify sequences of events in low-level Windows API calls and application logs that lead to errors
- Built computer vision infrastructure (classification, de-duplication of images, object detection and identification of multiple classes pertinent to the domain, leveraging transfer and few-shot learning
- Experimenting with a deep learning agent that utilizes imitation learning and reinforcement learning to automate QA and UAT sequences

#### **Data Scientist**

### Expedia Group - H Hotels.com

🛗 Jul 2018 - Mar 2020

**♀** London, UK

- Discovery and insight generation that led to hypothesizing, setting-up & analysing >100 A/B and multivariate experiments driving ~\$94M GP
- Time-series analysis and simulations of Thompson Sampling (Bayesian) Multi-Armed Bandit agent, to determine impact of seasonal patterns on convergence. Created a transformer to de-trendise signal, correcting non-stationarity
- Research and implementation of **Bayesian A/B testing** methods (informed priors, stopping rules, weighted likelihood, ROPE) reducing test duration
- Packaged (Docker) and deployed (Helm, Kubernetes) experimentation platform on the cloud, to democratise access, saving hundreds of analyst-hours
- Advocated for multi-objective optimisation and prototyped the framework

#### Lead Data Scientist

# **UCL & Future Skills Training (NGO)**

🛗 Jan 2020 - Mar 2020

**♀** London, UK

- Project lead in UCL Analytics for Social Impact Society, managing a team of 5 graduate students helping a charity extract value from conversational data
- Designed and deployed an NLP based sentiment classifier with thematic identification & clustering (Flask API, hosted containerized on AWS)

#### Satalia

May 2018 - August 2018

**♀** London, UK

Performed run-time optimisations for A\* search methods with heuristic development for a multi-stage stochastic optimisation pricing agent

### **Chief Operating Officer**

#### Ormos Foods

**♀** London, UK

 Hacked growth in a neonatal company, managing a growing team (from 3 to 20 strong) responsible for design, marketing and sales of >500 products

## **Experimental Particle Physics**

### Imperial College London & CERN

- Developed in C++ an automated multivariate analysis framework for tuning a binary classifier that accepts/rejects signal/noise events
- Explored an LDA and BDT approach to identify important predictors leading to ~8-12% signal efficiency gains

# **EDUCATION**

**MSc Business Analytics** 

## **University College London (UCL)**

- Social network analysis, community detection and NLP based sentiment classification to explore factors driving behavioural change in weight loss interventions using wearables
- Developed a predictive model for an artist's success aimed at curating new artists to promote on highly performing Spotify playlists (PCA, XGBoost & SVMs)

BSc Psychology (Honours)

#### The Open University

max Apr 2011 - May 2017

**BSc Physics (Honours)** 

#### **Queen Mary University of London**

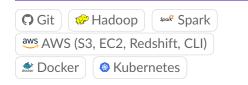
## Sep 2010 - Jul 2013

• Model fitting through extraction of probability density functions by optimising a  $\chi^2$  function using least squares approach

# **PROGRAMMING**



# **TOOLS & TECH**



# **PUBLICATIONS**



#### **JOURNALS**

Arnold, T.et al.2014. Structure of normal-alkanes adsorbed on hexagonal-boron. J. Phys. Chem.

# **CERTIFICATIONS & AWARDS**



Scrum Alliance

Scrum Product Owner



**Guinness World Record Holder** Virgin Kitesurfing Armada 2016 UK

Int. Kiteboarding Organization

Kitesurfing Instructor Level 1