Georgios Giasemidis

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Google Scholar: https://bit.ly/3oBrDj0

Work Experience

Apr. 2019 – present **Senior Data Scientist**, *Choreograph (former GroupM D&T, former Sandtable)*, London.
Data analysis and model building of complex systems focusing on Agent Based Modelling (ABM) simulations in Python.
- Audience ABMs for media clients
- Consumer ABMs for retail clients
- Covid-19 impact ABM for retail categories
- Covid-19 vaccine roll-out ABM
- Automotive market ABM

Dec. 2013 – Apr. 2019 **Senior Analyst & Data Scientist**, *CountingLab LTD*, Reading.
Big data analytics in (i) energy, (ii) retail & (iii) defence sectors. Data analysis, research and mathematical modelling. Implementation of machine learning algorithms in Python, analysis of output and presentation of results. Main Projects:
- Short & medium term energy demand forecasting. Modelling future demand low-voltage networks for the TVV project, in collaboration with *SSEN*, funded by *Ofgem*.
- Customer segmentation and emergent behaviour patterns. Clients: *Chic Outlet Shopping*, *Quidco*, *Net-A-Porter*.
- Sentiment & social network dynamics, funded by *MoD*.
- Development of algorithms for identifying the veracity of rumours (fake news) (Phase 1 & 2), funded by *MoD*. Expertise in Twitter-data collection. Research lead and project co-management.
- Automatic threat detection of firearms in X-rays, funded by *SBRI* via *InnovateUK*. Research lead and project management.
- Energy demand forecasting for smart storage control.
- Dissagregation of energy demand for SMEs, in collaboration with *ANDtr*, funded by *InnovateUK*.
- Achievement: Joint 3rd place in Global Energy Forecasting Competition 2014.

Oct. 2013 – Nov. 2013 **Tutor**, *Oxford Tutorial College*, Oxford, Tutoring physics for A-Levels, managing the lab, demonstrating table-experiments.

Oct. 2010 – June 2013 **Tutor**, *Several colleges of Oxford University*, Oxford, Tutoring advanced topics of maths and physics to B.Sc. students. Organising tutorials, college exams and revision classes.

Education

Oct. 2009 – Sep. 2013 **D.Phil. (Ph.D.) Theoretical Physics**, *University of Oxford*, Kellogg College, Thesis title: *Spectral dimension in graph models of causal quantum gravity*.

Oct. 2004 – Jul. 2009 **B.Sc. Physics**, *University of Athens*, Graduated with "Excellence", 9.06/10, second best grade in the year out of 200 students. First-class honours degree.

Spring Term 2009 **Visiting Researcher**, *University of Bonn*, Theoretical Physics, via Socrates - Erasmus programme.

Relevant Skills

Data Science Stack Python (excellent); pandas, numpy, scipy, sklearn, TensorFlow. Six years of experience. Data analysis, machine learning, model building, deployment and production.
SQL Server (excellent), Matlab (very good), AWS (good), Docker (good), Elasticsearch (good), C/C++ (good), Mathematica (good).

Methods & techniques
- Agent Based Modelling (ABM) simulations
- Machine learning: supervised, semi-supervised & unsupervised algorithms, feature reduction techniques, biased datasets.
- Optimisation algorithms: genetic algorithms, integer programming, etc., see Publication for further details.
- Time-series & forecasting methods: time-series analysis, recurrence quantification analysis, kernel density estimation, quantile regression, machine learning regression methods, see Publication 1 and Publication 2 among others for further details.
- Natural language processing and message stance classification, see Publication for further details.
- Image processing: thresholding, key-point detection, object detection, see Publication for further details
- Twitter data collection, see Publication for further details

Research & mathematics
Strong mathematical background, analytical and numerical skills.
13 publications in peer-reviewed journals, 6 in peer-reviewed international conference proceedings, 2 book chapters, with hundreds of citations. Details on Google scholar profile.

Side Projects
NBA fantasy analytics, see blog on Medium.com. Predicting the outcome of Euroleague basketball games, article on arXiv.org.

Misc.
Ability to quickly learn, implement and apply new methods and algorithms.
Time management & efficiency.

Interests

Sciences, raspberry pi applications, drone and Lego enthusiast, scuba diving, travelling and sports.
Analytics in sports, particularly basketball.