# **Georgios Spithourakis**

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#### **RESEARCH INTERESTS**

Machine learning, natural language processing, information retrieval, distributional semantics, multiple-instance learning, structured prediction, forecasting.

### **EDUCATION**

#### **University College London**

# **PhD Candidate in Computer Science**

2013-2016 (expected)

Supervisors: Sebastian Riedel, Steffen Petersen

Project: Multimodal distributional semantics for understanding clinical language.

#### **University College London**

# MSc in Computational Statistics and Machine Learning (Merit)

2012-2013

Themes: Supervised & unsupervised learning | Information retrieval & data mining | Machine vision.

Dissertation Project: Column generation in loopy models. Supervisor: Sebastian Riedel.

# **National Technical University of Athens**

**Diploma of Electrical & Computer Engineering (MSc equivalent, GPA: 8.58/10.0)** 

2007-2011

28<sup>th</sup> out of 325 in year of graduation, completed the 5-year programme in 4 years

Major: Telecommunications. Themes: Signals, control & robotics | Electromagnetic waves & telecommunications | Telecommunication systems & computer networks | Management & decision support systems.

Dissertation Project: Application of aggregate-disaggregate forecasting methodology to non-intermittent demand data. Supervisor: Vasilis Assimakopoulos.

#### RESEARCH EXPERIENCE

University College London

PhD Candidate 2013-present

Analysed clinical data to find correspondence of lexical terms to physical measurements.

Developed and evaluated neural model for multi-instance text regression.

Forecasting and Strategy Unit, National Technical University of Athens

Research Associate 2011-2012

Analysed forecasting simulation system usage data to show improvements in student perceived learning.

Forecasting and Strategy Unit, National Technical University of Athens

# Research Assistant/Software Engineer

2009-2011

Evaluated novel use of time series forecasting methods.

Developed web-based forecasting simulation system on which students ran course projects.

# **TEACHING EXPERIENCE**

University College London, Dept. of Computer Science

# **Teaching Assistant**

Object-Oriented Programming (undergraduate, taught by Dean Mohamedally)

(spring) 2014, 2015 (autumn) 2013, 2014

Introductory Programming (postgraduate, taught by D. Mohamedally) Mobile App Design (postgraduate, taught by D. Mohamedally)

(autumn) 2013, 2014

Natural Language Processing (postgraduate, taught by Sebastian Riedel)

(autumn) 2013

National Technical University of Athens, School of Electrical and Computer Engineering

#### **Teaching Assistant**

Forecasting Techniques (undergraduate, taught by Vasilis Assimakopoulos)

(spring) 2010, 2011, 2012

Final year projects (postgraduate, supervised by V. Assimakopoulos), two appeared in conferences

2011,2012

# **PUBLICATIONS**

**Journals** 

- **G. Spithourakis,** F. Petropoulos, K. Nikolopoulos and V. Assimakopoulos. Amplifying the learning effect via a forecasting and foresight support system. *International Journal of Forecasting*, 31(1):20-32, 2015.
- **G. Spithourakis**, F. Petropoulos, K. Nikolopoulos and V. Assimakopoulos. A systemic view of the ADIDA framework. *IMA Journal of Management Mathematics*, 25(2): 125-137, 2014.
- F. Petropoulos, K. Nikolopoulos, **G. Spithourakis** and V. Assimakopoulos. Empirical heuristics for improving intermittent demand forecasting. *Industrial Management & Data Systems*, 113(5):683-696, 2013.
- **G. Spithourakis,** F. Petropoulos, M.Z. Babai, K. Nikolopoulos and V. Assimakopoulos. Improving the performance of popular supply chain forecasting techniques: an empirical investigation. *Supply Chain Forum: an International Journal*, 12(4):16-25, 2012.

Conferences

- **G. Spithourakis,** S. Petersen, and S. Riedel. Harnessing the predictive power of clinical narrative to resolve inconsistencies and omissions in EHRs. Short paper and poster presentation in 2nd Workshop on Machine Learning for Clinical Data Analysis, Healthcare and Genomics, NIPS 2014.
- N. Theodorou, **G. Spithourakis** and V. Assimakopoulos. Investment portfolio management with trend forecasting methods. Paper presented at *the Operational Research Society Annual Conference (OR54)*, 2012.
- E. Mountalas, **G. Spithourakis** and V. Assimakopoulos. Empirical application, evaluation and comparison of forecasting methods for the electrical system's System Marginal Price: a case study in Greek electricity market. In *Proceedings of the 23<sup>rd</sup> National Conference of the Hellenic Operational Research Society*, pages 9-13, 2012.

# **AWARDS & DISTINCTIONS**

The Farr Institute of Health Informatics Research Studentship for PhD	2013-2016
Foundation for Education and European Culture (IPEP) Scholarship (financial support for MSc)	2012-2013
Estate of Panagiotis Triadafyllidis Endowed scholarship (financial support for undergraduate studies, merit-based)	2007-2011
Eurobank EFG Group ("Great Moment for Education" Programme)  Honoured by the President of the Hellenic Republic for exceptional score in National Examinations	2008

2007

# **SKILLS, ACTIVITIES & INTERESTS**

Languages: Greek (Mother Tongue) | English (Excellent - C2) | German (Advanced - C1) | Japanese (Intermediate - JLPT N3)

Programming Languages: Scala, Java, VB.NET, C, Python, MATLAB, R

Award for ranking 1<sup>st</sup> in national examinations in local high school

Web Technologies: HTML/CSS, ASP.NET, AJAX, (My)SQL

**Extracurricular Activities:** Water polo | Volunteer in Welsh environmental programme (2012, two weeks) | Camp cabin leader (2007, three weeks) | Volunteering contribution to translation "Watashi no Hiroshima" ("My Hiroshima"), short story by Junko Morimoto (Japanese to Greek)