Georgios Spithourakis

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RESEARCH INTERESTS

Machine learning, natural language processing, grounded language generation, neural networks, distributional semantics, structured prediction, forecasting.

EDUCATION

University College London

PhD Candidate in Computer Science

2013-2017 (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

28th 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.

Microsoft Research

Summer Research Intern 2015

Conditional language modelling with neural networks

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

Senior Teaching Assistant

Introductory Programming (postgraduate, taught by D. Mohamedally)

(autumn) 2015

Teaching Assistant

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

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

Natural Language Processing (postgraduate, taught by Sebastian Riedel)

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

(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 (undergraduate, 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 23rd 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

Award for ranking 1st in national examinations in local high school

2008

SKILLS, ACTIVITIES & INTERESTS

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

Programming Languages: python (theano), Scala, Java, VB.NET, C, MATLAB, R

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)