

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****2013-2018 (expected)**

Supervisors: Sebastian Riedel, Steffen Petersen

Project: Multimodal distributional semantics for understanding clinical language.

University College London**MSc in Computational Statistics and Machine Learning****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 numerically grounded language models and evaluated on semantic error correction.

Amazon/Evi Technologies

Research Intern**2016**

Question Answering

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)

(spring) 2014, 2015

Introductory Programming (postgraduate, taught by D. Mohamedally)

(autumn) 2013, 2014

Mobile App Design (postgraduate, taught by D. Mohamedally)
Natural Language Processing (postgraduate, taught by Sebastian Riedel)

(autumn) 2013, 2014, 2015
(autumn) 2013-2017

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

MENTORING

Finneas Jacob Robson Cattling. Towards automated clinical coding. UCL, MSc in Business Analytics (specialisation in Computer Science) Dissertation, degree awarded in 2017, co-supervised with Sebastian Riedel.

Jiayu Sherri Lee. Question-to-statement conversion using pivot translations. UCL, MSc in Computer Science, degree awarded in 2017, co-supervised with Sebastian Riedel.

Benjamin Riedel. Simple yet powerful: A system for news article stance detection. UCL, MSc in Machine Learning Dissertation, degree awarded in 2017, co-supervised with Sebastian Riedel, Isabelle Augenstein.

Dhruv Ghulati. Distant Supervision and Cost Sensitive Classification for Weakly Supervised Claim Detection. UCL, MSc in Computer Science Dissertation, degree awarded in 2016, co-supervised with Sebastian Riedel, Isabelle Augenstein.

Emanuel Mountalas. Empirical application, evaluation and comparison of forecasting methods for the electrical system's System Marginal Price: a case study in Greek electricity market. NTUA, BSc/MSc in Electrical Engineering, degree awarded in 2012, co-supervised with Sebastian Riedel.

Triantafyllos Nikolaos Theodorou, Investment portfolio management with trend forecasting methods. NTUA, BSc/MSc in Electrical Engineering, degree awarded in 2012, co-supervised with Vasilios Assimakopoulos.

Andreas Desalermos. Application and evaluation of optimisation techniques for exponential smoothing parameters. NTUA, BSc/MSc in Electrical Engineering, degree awarded in 2011, co-supervised with Vasilios Assimakopoulos, Fotis Petropoulos.

PUBLICATIONS

Conferences

B. Riedel, I. Augenstein, **G. Spithourakis** and S. Riedel. A simple but tough-to-beat baseline for the Fake News Challenge stance detection task. arXiv preprint, 2017.

N. Mostafazadeh, C. Brockett, B. Dolan, M. Galley, J. Gao, **G. Spithourakis** and L. Vanderwende. Image-Grounded Conversations: Multimodal Context for Natural Question and Response Generation. IJCNLP 2017.

G. Spithourakis, I. Augenstein and S. Riedel. Numerically Grounded Language Models for Semantic Error Correction. EMNLP 2016.

G. Spithourakis, S. Petersen and S. Riedel. Clinical Text Prediction with Numerically Grounded Conditional Language Models. EMNLP-LOUHI workshop 2016.

J. Li, M. Galley, C. Brockett, **G. Spithourakis**, J. Gao, B. Dolan. A Persona-Based Neural Conversation Model. ACL, 2016.

G. Spithourakis, S. Petersen, and S. Riedel. Harnessing the predictive power of clinical narrative to resolve inconsistencies and omissions in EHRs. 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.

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.

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 1 st in national examinations in local high school	2008 2007

SKILLS, ACTIVITIES & INTERESTS

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

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

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

Extracurricular Activities: Human Code Computer Tongue workshops in artificial creativity for poetry | 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)