Ismini Lourentzou | CV

(217) 419 6979 • lourent2@illinois.edu • isminoula.github.io

My research interests lie in the intersection of Machine Learning, Natural Language Processing and Information Retrieval. My work is tackling all sorts of bottlenecks related to data noise, sparsity, domain shift and lack of annotations. I mainly focus on **Active and Semi-supervised learning** and lately on **Domain Adaptation**. Another big part of my work is **Deep Learning for Social Media Analysis**. I have also worked on interdisciplinary projects that touch societal problems. Excited about work in areas such as Reinforcement Learning, Game Theory and Meta-learning.

Education

- **University of Illinois at Urbana - Champaign**
  PhD Computer Science , Advisor: Prof. ChengXiang Zhai

Athens University of Economics and Business, Athens, Greece
- *B.S. Computer Science, July 2013, Advisor: Prof. Michalis Vazirgiannis*
  Thesis Topic: *Automated Snippet Generation for Online Advertising*

Athens University of Economics and Business, Athens, Greece
- *B.S. Business Administration, October 2009, Advisor: Prof. Vassilis Orfanos*
  Thesis Topic: *The Implications of Basel II on the Greek Banking Sector*

Awards

- **Outstanding Teaching Assistant Award** - CS Department @ UIUC, Fall 2017
- **Travel Award** for ISWC 2018, Pacific Grove, CA (declined)
- **Travel Award** for ISWC 2017, Vienna, Austria
- **Travel Award** for IEEE Big Data 2017, Boston, MA
- **Travel Award** for WiML 2017 (co-located with NIPS'17), Long Beach, CA
- **Microsoft Azure Research Award (November 2014)**
  14 awards given by Microsoft: access to Azure for research purposes (estimated value: $20,000)
  Proposal: Multivariate Time Series Analysis for Trend Forecasting
- **Yahoo! Certificate of Achievement** for the most useful and cool project
  CS 511 - Advanced Data Management course, Spring 2014, Instructor: Prof. Kevin Chang
  Project:"Multi-resolution drill-down with clustering and sampling"
- Selected from the University of Illinois at Urbana at Champaign, Computer Science Department as one of the three nominees for the **Microsoft Graduate Women's Scholarship** for 2014
- IPL at ImageClef 2013 - AMIA Medical Task: 2^{nd} place in Textual and 5^{th} place in Visual Ad-hoc image-based retrieval

Publications

[1] **Lourentzou, Ismini**, Anna Lisa Gentile, Daniel Gruhl, Jane Fortner, Michele Freemon, and Kendra Grande. Difficult relations: Extracting novel facts from text. In *International Semantic Web Conference*. Springer, 2018.

[2] Chase Geigle, **Lourentzou, Ismini**, Hari Sundaram, and ChengXiang Zhai. Clads: a cloud-based virtual lab for the delivery of scalable hands-on assignments for practical data science education. In *Proceedings of the 23rd Annual ACM Conference on Innovation and Technology in Computer Science Education*. ACM, 2018.

[3] **Lourentzou, Ismini**, Alfredo Alba, Anni Coden, Anna Lisa Gentile, Daniel Gruhl, and Steve Welch. Mining relations from unstructured content. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining*. Springer, 2018.

[4] **Lourentzou, Ismini**, Daniel Gruhl, and Steve Welch. Exploring the efficiency of batch active learning for human-in-the-loop relation extraction. In *Companion of The Web Conference 2018*, 2018.

[5] **Lourentzou, Ismini**, Alex Morales, and ChengXiang Zhai. Text-based geolocation prediction of social media users with neural networks. In *2017 IEEE International Conference on Big Data*, 2017.

[6] Sophie Lohmann, **Lourentzou, Ismini**, Chengxiang Zhai, and Dolores Albarracín. Who is saying what on twitter: An analysis of messages with references to hiv and hiv risk behavior. In *Acta de investigacion psicologica*, 2018.

[7] Ruby Mendenhall, Nicole Brown, Michael L Black, Mark Van Moer, **Lourentzou, Ismini**, Karen Flynn, Malaika Mckee, and Assata Zerai. Rescuing lost history: Using big data to recover black women's lived experiences. In *Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale*, 2016.

[8] **Lourentzou, Ismini**, Graham Dyer, Abhishek Sharma, and ChengXiang Zhai. Hotspots of news articles: Joint mining of news text & social media to discover controversial points in news. In *2015 IEEE International Conference on Big Data*, 2015.

[9] Stamatina Thomaidou, **Lourentzou, Ismini**, Panagiotis Katsivelis-Perakis, and Michalis Vazirgiannis. Automated snippet generation for online advertising. In *Proceedings of the 22nd ACM international conference on Conference on information & knowledge management*. ACM, 2013.

[10] Spyridon Stathopoulos, **Lourentzou, Ismini**, Antonia Kyriakopoulou, and Theodore Kalamboukis. Ipl at clef 2013 medical retrieval task. In *CLEF 2013 Online Working Notes*, 2013.

Research Experience

- **HIV Radar project** — **UIUC**
  Research Assistant — *Fall 2015, Spring 2016*
  Interdisciplinary research, PI: Prof. Dolores Albarracin
  Analyzing social and online media influences on HIV/STI transmission behaviors from Twitter and sociodemographic variables. More information on the project website: `https://www.socialactionlab.org/hsmg`

- **Big Data methods for social sciences** — **UIUC**
  Research Assistant — *Fall 2014 - Spring 2016*
  Interdisciplinary research, PI: Prof. Ruby Mendenhall
  Analyzing big-data collections with missing metadata to recover books and articles related to black women's lived experiences. PI received an HPC Innovation Excellence Award for this project

- **iTextNetMiner - Topic Summarization & opinion integration** — **UIUC**
  Research Assistant — *{Spring, Summer, Fall} 2014, Spring 2015*
  PI: Kaizhi Tang, Intelligent Automation Inc
  A Scalable, Distributed and Modular Toolkit for Mining Text-Rich Heterogeneous Information Networks to Enhance Contextual Understanding: iTextNetMiner

- **Information Retrieval Group at ImageClef 2013 - AMIA: Medical Task** — **AUEB**
  Research Assistant — *February 2013 - June 2013*
  Supervisor: Prof. Theodore Kalamboukis
  Developped the Textual Ad-hoc image-based retrieval method that was placed second in the ImageClef'13 competition

- **Ad Creative Generation (Bachelor Thesis Project)** — **AUEB**
  Research Assistant — *July 2012 - June 2013*
  Supervisor: Prof. Michalis Varzigiannis
  Implemented the Information Extraction and the Sentiment Analysis phases
  Text generation system that, given a product landing page as input, can produce short advertising text (snippets) in an automated and massive manner

Teaching Experience

- **CS410DSO - Text Information Systems**
  Teaching Assistant @UIUC — *Fall 2018, 2017, 2016*
  Instructor: Prof. ChengXiang Zhai
  Graduate level course in Text Informatics offered online for the MCS-DS degree

- **CS410 - Text Information Systems**
  Teaching Assistant @UIUC — *Spring, 2017*

Instructor: Prof. ChengXiang Zhai
Graduate level course in Text Informatics

- **CS125 - Introduction to Computer Science**
  Teaching Assistant @UIUC *Fall, 2013*
  Instructor: Prof. Craig Zilles
  Introductory course in computing for CS majors

Work Experience

- **IBM Research - Intelligence Augmentation Team**
  Research Intern *Summer 2018, 2017*
  Mentor: Dr. Daniel Gruhl
  Summer 2018: Combining Active with Semi-supervised learning.
  Summer 2017: Active learning for real-time domain-specific relation extraction.

- **Microsoft Research - Machine Teaching group**
  Research Intern *Summer 2015*
  Mentor: Dr. Patrice Simard
  Exploring dictionary refinement and active learning. Dictionaries are leveraged in the ICE platform to bridge the gap between non-machine learning experts and the document classification system.

- **Packt Publishing**
  Technical Reviewer *April - June 2014, Aug. - Sept. 2013*
  D3 for Dynamic Data Visualizations video courses, Alexander Simoes
  Data Visualization with D3.js Cookbook, Nick Qi Zhu, ISBN: 9781782162162

- **National Bank of Greece S.A.**
  , Business Loans, Imports - Exports & Foreign Exchange *October 2005 - August 2013*

- **National Bank of Greece S.A., Shipping Branch**
  , Customers of this particular branch are only shipping companies, both foreign & local. *February 2004 - October 2005*

Other Activities

- **PURE - Promoting Undergraduate Research in Engineering**
  Mentor for CS undergraduate students *Fall 2014 - Spring 2015*
  12-week research mentorship program

- **CS Graduate Ambassador**
  Welcoming prospective graduate students *Spring 2014, 2015, 2016, 2017*

Technical and Personal skills

- **Programming Languages and Tools:** Python, D3.js, Java, Matlab/Scilab/Octave/R, C#/C++, SQL/mySQL, UNIX Shell Scripting, LaTeX, HTML, CSS, Awk, F#
- **Deep Learning packages:** pyTorch, keras, openNMT, torchtext

Online courses

Statements of Accomplishment from Coursera in:
Machine Learning, Prof. Andrew Ng - Stanford University
Computing for Data Analysis, Prof. Roger D. Peng - Johns Hopkins University
NLP, Prof. D. Jurafsky & Prof. Ch. Manning - Stanford University

Languages

Greek: Native
English: Fluent (Certificate of Proficiency in English, University of Michigan - 2002)
French: Beginners (Delf - Level I - 2002)