# Katerina Margatina

CONTACT

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RESEARCH INTERESTS machine learning, deep learning, uncertainty estimation, transfer learning, active learning, semi-supervised learning, natural language processing, machine understanding and reasoning, interpretability, language modeling, fairness

EDUCATION

# University of Copenhagen

June 2021 - today

Visiting PhD in Computer Science

- Department of Computer Science, Natural Language Processing Group (CoAStaL)
- Supervisor: Prof. Anders Søgaard [scholar]
- Focus: learning from disagreement, multiplicity, fairness

# University of Sheffield

October 2019 - today

PhD in Computer Science

- Department of Computer Science, Natural Language Processing Group
- Primary Supervisor: Dr Nikolaos Aletras [scholar]
- Second Supervisor: Dr Loïc Barrault [scholar]
- Funding: Amazon Alexa Fellowship
- Focus: transfer learning, active learning, uncertainty estimation, language modeling, natural language understanding

# National Technical University of Athens

September 2012 - July 2019

B<br/>Eng & M Eng in Electrical and Computer Engineering

- **GPA**: 8.06/10 (top 15%)
- Major: Electronics and Systems
- Related Courses: Neural Networks, Pattern Recognition, Natural Language Processing, Computer Vision, Robotics, Neuro-fuzzy Robotic Control, Control System Design, Digital Signal Processing, Advanced Computer Architecture
- Thesis: "Transfer Learning and Attention-based Conditioning Methods for Natural Language Processing"

Supervisor: Prof. Alexandros Potamianos [scholar]

#### Universidad Carlos III de Madrid

January 2016 - July 2016

Engineer's Degree (Erasmus Mobility in Masters)

Arsakeio Psychikou, Psychiko, Athens, Greece

September 2009 - June 2012

Certificate of Secondary Education

- **GPA**: 19.8/20 (excellent)
- Nationwide University Entrance Examination: 19.25/20 (top 1% nationwide)

# Work Experience

# University of Sheffield

February 2020 - today

Teaching Assistant at the Department of Computer Science

- COM4513/6513 Natural Language Processing (Feb. 2020 Jun. 2020)
- COM3110/4115 Text Processing (Oct. 2020 Feb. 2021)
- COM6513 Natural Language Processing (Feb. 2021 Jun. 2021)

# DeepSea Technologies

November 2018 - July 2019

Artificial Intelligence team (A.I DeepSea) Machine Learning Engineer

#### Private Tutor

September 2015 - July 2019

Private Lessons, Athens, Greece Mathematics, Physics & Circuits Teacher

#### Publications

- [1] MARGATINA, K., VERNIKOS, G., BARRAULT, L., AND ALETRAS, N. Active learning by acquiring contrastive examples. In *EMNLP* (2021)
- [2] Yamaguchi, A., Chrysostomou, G., Margatina, K., and Aletras, N. Frustratingly simple alternatives to masked language modeling. In *EMNLP* (2021)
- [3] MARGATINA, K., BARRAULT, L., AND ALETRAS, N. Bayesian active learning with pretrained language models. In *ArXiv* (2021)
- [4] VERNIKOS, G., MARGATINA, K., CHRONOPOULOU, A., AND ANDROUTSOPOULOS, I. Domain Adversarial Fine-Tuning as an Effective Regularizer. In Findings of EMNLP (2020)
- [5] MARGATINA, K., BAZIOTIS, C., AND POTAMIANOS, A. Attention-based conditioning methods for external knowledge integration. In ACL (2019)
- [6] Chronopoulou\*, A., Margatina\*, A., Baziotis, C., and Potamianos, A. Ntua-slp at iest 2018: Ensemble of neural transfer methods for implicit emotion classification. In Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (2018)

### Honors and Awards

EMNLP

November 2020

Awarded a scholarship of 100\$ to participate to the virtual Conference on Empirical Methods in Natural Language Processing (EMNLP 2020).

ALPS October 2020

Awarded a fee waiver of 50€ to participate to the virtual Advanced Language Processing Winter School (ALPS 2021) organized by LIG and Naver Labs Europe.

MLSS June 2020

Selected (accepted 180 out of 1300+ applications) to participate to the Machine Learning Summer School (MLSS) organized by the Max Planck Institute for Intelligent Systems.

# Amazon Alexa Fellowship

October 2019

Awarded an Amazon Alexa Fellowship for a 3-year PhD program at the University of Sheffield under the supervision of Dr Nikolaos Aletras.

# **EETN Scholarship Award**

September 2019

Awarded a scholarship of 300€ from the Hellenic Artificial Intelligence Society (EETN) to attend the first Athens Natural Language Processing Summer School (AthNLP).

# **ACM-W Scholarship Award**

July 2019

Awarded an ACM-W scholarship [link] of 600\$ to attend the Annual Meeting of the Association for Computational Linguistics in Florence (ACL 2019).

WASSA IEST

August 2018

Ranked  $3^{\rm rd}$  out of 30 participants at the WASSA 2018 Implicit Emotion Shared Task (IEST) conducted by the EMNLP 2018 Conference.

#### Presentations

# NLP Reading Group (online)

June 2021

Presentation of the ICLR 2020 paper "Learning The Difference That Makes A Difference With Counterfactually-Augmented Data" at the Sheffield NLP Reading Group. [slides]

# NLP Reading Group (online)

January 2021

Presentation of the NeurIPS 2020 paper "Unsupervised Data Augmentation for Consistency Training" at the Sheffield NLP Reading Group. [slides]

#### Bayesian Deep Learning NeurIPS meetup (online)

December 2020

Presentation of the our paper "Bayesian Active Learning with Pretrained Language Models" at the NeurIPS Europe meetup on Bayesian Deep Learning in gather town. [poster]

# NLP Reading Group (online)

October 2020

Presentation of the EMNLP 2020 paper "Cold-start Active Learning through Self-supervised Language Modeling" at the Sheffield NLP Reading Group. [slides]

# MLSS (online)

July 2020

Presentation of ongoing work at the Machine Learning Summer School (MLSS). [video]

### NLP Reading Group @Sheffield

March 2020

Presentation of the NeurIPS 2019 paper "BatchBALD: Efficient and Diverse Batch Acquisition for Deep Bayesian Active Learning" at the Sheffield NLP Reading Group. [slides]

#### NLP Reading Group @Sheffield

November 2019

Paper presentation of the paper "Distilbert, a distilled version of BERT: smaller, faster, cheaper and lighter" at the Sheffield NLP Reading Group. [slides]

# EurNLP @London

October 2019

Poster presentation of our one-page abstract paper "Adversarial Fine-tuning of Pretrained Representations" at the first European NLP Summit (EurNLP) hosted by Facebook London. [poster]

#### **ACL** @Florence

July 2019

Poster presentation of the paper "Attention-based Conditioning Methods for External Knowledge Integration" at the ACL 2019 Conference. [poster]

# NTUA Thesis Presentation @Athens

July 2019

Presentation of my Diploma Thesis "Transfer Learning and Attention-based Conditioning Methods for Natural Language Processing". [slides]

#### WASSA EMNLP @Brussels

November 2018

Oral presentation of our paper "NTUA-SLP at IEST 2018: Ensemble of Neural Transfer Methods for Implicit Emotion Classification". [slides]

#### AUEB NLP Group @Athens

October 2018

Oral presentation at AUEB's weekly NLP group organized by Prof. Ion Androutsopoulos. Topic: "Affective Self-Attention Mechanism for Text Classification" - Work in progress [presentation slides]

Programming

SKILLS

Languages (excellent): Python, C, MATLAB, Bash

Languages (familiar with): C++, SQL, Java

Machine Learning Frameworks: PyTorch, Tensorflow, Keras

Other: LATEX, Unix, Git, Flask

LANGUAGES Greek (Native), English (C2), Spanish (B2), French (B1)

Personal Interests Traveling, Tennis, Bouldering, Hiking, Skiing, Sailing, Cinema, Theater, Literature

REFERENCES Prof. Anders Søgaard, University of Copenhagen, soegaard@di.ku.dk

Dr. Nikos Aletras, University of Sheffield, n.aletras@sheffield.ac.uk Dr. Loïc Barrault, University of Sheffield, 1.barrault@sheffield.ac.uk