# Alexandra Chronopoulou

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## **Research Interests**

Efficient Transfer Learning, Machine Translation & Multilingual Natural Language Processing, Modular Representation Learning, Domain Adaptation, Unsupervised & Low-Resource Learning

#### **Education**

## PhD in Computer Science

Munich, Germany

University of Munich (Ludwig-Maximilians-Universität München)

09/2019-present

- Natural Language Processing Group (CIS)
- o Focus: Low-Resource Machine Translation and Parameter-Efficient Transfer Learning
- o Supervisor: Alexander Fraser

#### **Erasmus Exchange Student Program**

Barcelona, Spain

Polytechnic University of Catalonia (UPC)

01/2016-06/2016

o Relevant Coursework: Pattern Recognition, Mobile Robots and Navigation

#### Diploma (BEng & MEng) in Electrical and Computer Engineering

Athens, Greece

National Technical University of Athens

09/2012-02/2019

o GPA: 8.0/10 (top 15%)

o Thesis: Transfer Learning with Deep Neural Networks for Sentiment Analysis and Semantic Modeling

o Supervisor: Alexandros Potamianos

## **Professional Experience**

#### **Applied Science Intern**

Santa Clara, CA, USA

Amazon Web Services

08/2022-12/2022

I worked on speech translation with Prashant Mathur, Brian Thompson and Marcello Federico (Amazon Al language technology group).

Research Intern

Seattle, WA, USA (remote)

Allen Institute for Artificial Intelligence

05/2022-08/2022

I worked on parameter-efficient transfer learning for large language models with Jesse Dodge, Matt Peters, and my advisor Alex Fraser. Our paper will be published in EACL 2023 (findings).

#### Research Intern

Seattle, WA, USA (remote)

Allen Institute for Artificial Intelligence

07/2021-01/2022

I worked on efficient domain adaptation for large language models, supervised by Jesse Dodge and Matt Peters (AllenNLP team). Our paper was published in NAACL 2022.

#### Machine Learning Engineer

Los Angeles, CA, USA (remote)

Behavioral Signal Technologies Inc.

11/2018-07/2019

Basic emotion recognition from conversational data.

#### **Software Engineer Intern**

Athens, Greece

**NOKIA R&D** 

07/2017-01/2018

Prediction of code fault-proneness based on data from internal team projects.

# **Publications and Preprints**

[1] **Chronopoulou, A.**, Thompson, B., Mathur, P., Virkar, Y., Lakew, S. M., Federico, M. (2023). Jointly Optimizing Translations and Speech Timing to Improve Isochrony in Automatic Dubbing. arXiv pre-print. [paper]

- [2] Chronopoulou, A., Peters, M., Fraser, A., Dodge, J. (2023). AdapterSoup: Weight Averaging to Improve Generalization of Pretrained Language Models. EACL 2023 Findings. [paper]
- [3] **Chronopoulou, A.**, Stojanovski, D., Fraser, A. (2023). Language-Family Adapters for Low-Resource Multilingual Neural Machine Translation. LoResMT 2023. **[paper]**
- [4] Lai, W., **Chronopoulou, A.**, Fraser, A. (2022).  $m^4Adapter$ : Multilingual Multi-Domain Adaptation for Machine Translation with a Meta-Adapter. EMNLP 2022 Findings. **[paper]**
- [5] Chronopoulou, A., Peters, M., Dodge, J. (2022). Efficient Hierarchical Domain Adaptation for Pretrained Language Models. NAACL 2022. [paper] [code]
- [6] Chronopoulou, A., Stojanovski, D., Fraser, A. (2021). Improving the Lexical Ability of Pretrained Language Models for Unsupervised Neural Machine Translation. NAACL 2021. [paper] [code]
- [7] Chronopoulou, A., Stojanovski, D., Fraser, A. (2020). Reusing a Pretrained Language Model on Languages with Limited Corpora for Unsupervised Neural Machine Translation. EMNLP 2020. [paper] [code]
- [8] Vernikos, G., Margatina, K., **Chronopoulou, A.**, Androutsopoulos, I. (2020). Domain Adversarial Fine-Tuning as an Effective Regularizer. EMNLP 2020 Findings. **[paper] [code]**
- [9] Chronopoulou, A., Stojanovski, D., Hangya, V., Fraser, A. (2020). The LMU Munich System for the WMT 2020 Unsupervised Machine Translation Shared Task. WMT 2020. [paper] [code]
- [10] Chronopoulou, A., Baziotis, C., Potamianos, A. (2019). An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models. NAACL 2019. [paper] [code]
- [11] Chronopoulou, A.\*, Margatina ,K.\*, Baziotis, C., Potamianos, A. (2018). Ensemble of Neural Transfer Methods for Implicit Emotion Classification. WASSA 2018. [paper] [code]
- [12] Baziotis, C., Athanasiou, N., Chronopoulou, A., Kolovou, A., Paraskevopoulos, G., Ellinas, N., Narayanan, S., Potamianos, A. (2018). NTUA-SLP at SemEval-2018 Task 1: Predicting Affective Content in Tweets with Deep Attentive RNNs and Transfer Learning. SemEval 2018. [paper] [code]

#### **Honors and Awards**

#### Competitions

Ranked 1st in WMT 2020 Unsupervised Task. The task was translation for German-Sorbian in both directions. Ranked 3rd at the WASSA 2018 Implicit Emotion Shared Task (IEST).

Ranked 1st at the SemEval 2018 Task1E: Affect in Tweets.

#### Travel awards

Travel grant from Facebook to attend inaugural EurNLP 2019 summit in London, UK.

Awarded a scholarship from the Hellenic Artificial Intelligence Society to attend the 1st Athens Natural Language Processing Summer School (AthNLP 2019).

Awarded an ACM-W scholarship to attend the conference of the North American Chapter of the Association for Computational Linguistics in Minneapolis, MN, USA (NAACL 2019).

# **Programming Skills**

- Languages (excellent): Python, Bash
- Languages (familiar with): Matlab, SQL
- Machine learning frameworks: PyTorch, Tensorflow, keras
- Natural language processing frameworks: fairseq, HuggingFace
- o Other: Git, Docker

## Languages

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