# Alexandra Chronopoulou

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## **Research Interests**

machine translation & multilingual natural language processing, domain adaptation, unsupervised & low-resource learning, modular representation learning, parameter-efficient fine-tuning

# **Education**

#### PhD in Computer Science

Munich, Germany

Ludwig Maximilian University of Munich

09/2019-present

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

# Visiting Student, MEng

Barcelona, Spain

Polytechnic University of Catalonia (UPC)

01/2016-06/2016

#### 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 title: "Transfer Learning with Deep Neural Networks for Sentiment Analysis and Semantic Modeling"
- o Supervisor: Alexandros Potamianos

# **Professional Experience**

#### Research Scientist Intern

Berlin, Germany

Google

04/2023-present

Research on multilingual NLP using large language models (Google DeepMind team).

### **Applied Scientist Intern**

Santa Clara, CA, USA

Amazon Web Services

08/2022-12/2022

Research on isochronous speech translation for automatic dubbing (Amazon Translate team).

Research Intern

Seattle, WA, USA

Allen Institute for Artificial Intelligence

05/2022-08/2022

Research on weight-space averaging of adapters (AllenNLP team). Paper accepted at EACL 2023 findings.

Research Intern

Seattle, WA, USA

Allen Institute for Artificial Intelligence

07/2021-01/2022

Research on hierarchical adapters for domain adaptation (AllenNLP team). Paper appeared at NAACL 2022.

#### **Machine Learning Engineer**

Los Angeles, CA, USA

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**

- [1] Liu, Y., **Chronopoulou, A.**, Schütze, H., Fraser, A. (2023). On the Copying Problem of Unsupervised NMT: A Training Schedule with a Language Discriminator Loss. IWSLT 2023.
- [2] Pal, P., Thompson, B., Virkar, Y., Mathur, P., **Chronopoulou, A.**, Federico, M. (2023).Improving Isochronous Machine Translation with Target Factors and Auxiliary Counters. INTERSPEECH 2023. [paper]

- [3] 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]
- [4] Chronopoulou, A., Peters, M., Fraser, A., Dodge, J. (2023). AdapterSoup: Weight Averaging to Improve Generalization of Pretrained Language Models. EACL 2023 Findings. [paper]
- [5] **Chronopoulou, A.**, Stojanovski, D., Fraser, A. (2023). Language-Family Adapters for Low-Resource Multilingual Neural Machine Translation. LoResMT 2023. [paper]
- [6] Lai, W., **Chronopoulou, A.**, Fraser, A. (2022).  $m^4Adapter$ : Multilingual Multi-Domain Adaptation for Machine Translation with a Meta-Adapter. EMNLP 2022 Findings. [paper] [code]
- [7] Chronopoulou, A., Peters, M., Dodge, J. (2022). Efficient Hierarchical Domain Adaptation for Pretrained Language Models. NAACL 2022. [paper] [code]
- [8] Chronopoulou, A., Stojanovski, D., Fraser, A. (2021). Improving the Lexical Ability of Pretrained Language Models for Unsupervised Neural Machine Translation. NAACL 2021. [paper] [code]
- [9] 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]
- [10] Vernikos, G., Margatina, K., **Chronopoulou, A.**, Androutsopoulos, I. (2020). Domain Adversarial Fine-Tuning as an Effective Regularizer. EMNLP 2020 Findings. [paper] [code]
- [11] 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]
- [12] Chronopoulou, A., Baziotis, C., Potamianos, A. (2019). An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models. NAACL 2019. [paper] [code]
- [13] Chronopoulou, A.\*, Margatina ,K.\*, Baziotis, C., Potamianos, A. (2018). NTUA-SLP at IEST 2018: Ensemble of Neural Transfer Methods for Implicit Emotion Classification. WASSA 2018. [paper] [code]
- [14] 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]

## **Invited Talks**

Lilt AI: Efficient hierarchical domain adaptation of pretrained language models (slides)

Sep 2022

ELRC Workshop on LLMs: Language-family adapters for multilingual machine translation (slides)

Jun 2022

# **Teaching Experience**

#### **Ludwig Maximilian University of Munich**

Munich, Germany

Supervision of BA and MA thesis, tutor on Information Extraction, Machine Translation

09/2019-present

#### **Honors and Awards**

#### Competitions

Ranked 1st in WMT 2020 Unsupervised Task. The task was translation for German-Sorbian in both directions. Ranked 1st at the SemEval 2018 Task1E: Affect in Tweets.

#### 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 AthNLP 2019. Awarded an ACM-W scholarship to attend NAACL 2019.

Erasmus Exchange Student Program (01/2016/-06/2016) to visit UPC in Barcelona, Spain.

# **Programming Skills**

**Languages:** Python, Bash (excellent) / C, C++, Matlab, SQL, Java (familiar with) **ML & NLP frameworks:** PyTorch, Fairseq, HuggingFace, Tensorflow, keras, AllenNLP

# Languages

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