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*

o 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

Applied Scientist Intern   **Santa Clara, CA, USA**
Amazon Research   *08/2022-12/2022*

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

Research Intern   **Seattle, WA, USA (remote)**
Allen Institute for Artificial Intelligence   *05/2022-08/2022*

I worked on domain adaptation for language models using weight-space averaging of adapters (AllenNLP team).
The paper was accepted at the findings of EACL 2023.

Research Intern   **Seattle, WA, USA (remote)**
Allen Institute for Artificial Intelligence   *07/2021-01/2022*

I worked on efficiently adapting language models using a hierarchical clustering of domains (AllenNLP team).
The paper was accepted at 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

[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] [code]

[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). NTUA-SLP at IEST 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]

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

o **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.

o **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*)