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)
- Focus: Low-Resource Machine Translation and Parameter-Efficient Transfer Learning
- Supervisor: Alexander Fraser
- Expected Graduation: October 2023

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*

- GPA : $8.0/10$ (top 15%)
- Thesis title: "*Transfer Learning with Deep Neural Networks for Sentiment Analysis and Semantic Modeling*"
- Thesis Supervisor: Alexandros Potamianos

Professional Experience

Research Scientist Intern   **Berlin, Germany**
Google   *04/2023-07/2023*

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). Paper accepted at Interspeech 2023.

Research Scientist Intern   **Seattle, WA, USA (remote)**
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 Scientist Intern   **Seattle, WA, USA (remote)**
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 (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] Agarwal, M., ..., **Chronopoulou, A.**, et al. (2023). Findings of the IWSLT 2023 Evaluation Campaign. (50+ authors). IWSLT 2023. [paper]

[2] 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. [paper]

[3] 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]

[4] **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]

[5] **Chronopoulou, A.**, Peters, M., Fraser, A., Dodge, J. (2023). AdapterSoup: Weight Averaging to Improve Generalization of Pretrained Language Models. EACL 2023 Findings. [paper]

[6] **Chronopoulou, A.**, Stojanovski, D., Fraser, A. (2023). Language-Family Adapters for Low-Resource Multilingual Neural Machine Translation. LoResMT 2023. [paper]

[7] 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]

[8] **Chronopoulou, A.**, Peters, M., Dodge, J. (2022). Efficient Hierarchical Domain Adaptation for Pretrained Language Models. NAACL 2022. [paper] [code]

[9] **Chronopoulou, A.**, Stojanovski, D., Fraser, A. (2021). Improving the Lexical Ability of Pretrained Language Models for Unsupervised Neural Machine Translation. NAACL 2021. [paper] [code]

[10] **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]

[11] Vernikos, G., Margatina, K., **Chronopoulou, A.**, Androutsopoulos, I. (2020). Domain Adversarial Fine-Tuning as an Effective Regularizer. EMNLP 2020 Findings. [paper] [code]

[12] **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]

[13] **Chronopoulou, A.**, Baziotis, C., Potamianos, A. (2019). An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models. NAACL 2019. [paper] [code]

[14] **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]

[15] 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 & Other Academic Experience

IWSLT 2023 Dubbing Shared Task **Toronto, Canada**
Workshop Co-Organizer (website) *07/2023*
Ludwig Maximilian University of Munich **Munich, Germany**
Supervision of BA/MA theses, tutor on courses: Information Extraction, Machine Translation *09/2019-present*

Honors & 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, Jax, Fairseq, HuggingFace, Tensorflow, Keras, AllenNLP

Languages

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