Alexandra Chronopoulou

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in linkedin

Research Interests

LLM instruction following and evaluation, parameter-efficient fine-tuning, domain adaptation, machine translation & multilingual natural language processing

Employment

Google DeepMind   **New York, NY, USA**
Research Scientist   *01/2024-present*

Google DeepMind   **Berlin, Germany**
Research Scientist Intern   *04/2023-07/2023*
Supervisors: Sebastian Ruder, Priyanka Agrawal

Amazon AWS   **Santa Clara, CA, USA**
Applied Scientist Intern   *08/2022-12/2022*
Supervisors: Prashant Mathur, Brian Thompson, Marcello Federico

Allen Institute for Artificial Intelligence (AI2)   **Seattle, WA, USA (remote)**
Research Scientist Intern   *05/2022-08/2022*
Supervisors: Jesse Dodge, Matthew E. Peters

Allen Institute for Artificial Intelligence (AI2)   **Seattle, WA, USA (remote)**
Research Scientist Intern   *07/2021-01/2022*
Supervisors: Jesse Dodge, Matthew E. Peters

Behavioral Signal Technologies Inc.   **Los Angeles, CA, USA (remote)**
Machine Learning Engineer   *11/2018-07/2019*

NOKIA   **Athens, Greece**
Software Engineer Intern   *07/2017-01/2018*

Education

Ludwig Maximilian University of Munich   **Munich, Germany**
PhD in Computer Science   *09/2019-10/2024*

- Supervisor: Alexander Fraser
- Thesis: "*Efficient Multilingual and Domain Adaptation of Language Models under Resource Constraints*"

National Technical University of Athens   **Athens, Greece**
Diploma (BEng & MEng) in Electrical and Computer Engineering   *09/2012-02/2019*

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

Publications

1. What Matters for Model Merging at Scale?
   Yadav, P., Vu, T., Lai, J., **Chronopoulou, A.**, Faruqui, M., Bansal, M., Munkhdalai, T.
   arXiv 2024

2. Gemini 1.5: Unlocking multimodal understanding across millions of tokens of context
   Reid, M., .., **Chronopoulou, A.**, et al. (Gemini Team Google)
   arXiv 2024

3. Language and Task Arithmetic with Parameter-Efficient Layers for Zero-Shot Summarization
Chronopoulou, A., Pfeiffer, J., Maynez, J., Wang, X., Ruder, S., Agrawal, P.
Workshop on Multilingual Representation Learning@EMNLP 2024 Best Paper Award

4. Findings of the IWSLT 2023 Evaluation Campaign
Agarwal, M., .., **Chronopoulou, A.**, et al. (50+ authors)
IWSLT 2023

5. On the Copying Problem of Unsupervised NMT: A Training Schedule with a Language Discriminator Loss
Liu, Y., **Chronopoulou, A.**, Schütze, H., Fraser, A.
IWSLT 2023

6. Mitigating Data Imbalance and Representation Degeneration in Multilingual Machine Translation
Lai, W., **Chronopoulou, A.**, Fraser, A.
EMNLP 2023 Findings

7. Improving Isochronous Machine Translation with Target Factors and Auxiliary Counters
Pal, P., Thompson, B., Virkar, Y., Mathur, P., **Chronopoulou, A.**, Federico, M.
INTERSPEECH 2023

8. Jointly Optimizing Translations and Speech Timing to Improve Isochrony in Automatic Dubbing
Chronopoulou, A., Thompson, B., Mathur, P., Virkar, Y., Lakew, S. M., Federico, M.
arXiv 2023

9. AdapterSoup: Weight Averaging to Improve Generalization of Pretrained Language Models
Chronopoulou, A., Peters, M., Fraser, A., Dodge, J.
EACL 2023 Findings

10. Language-Family Adapters for Low-Resource Multilingual Neural Machine Translation
Chronopoulou, A., Stojanovski, D., Fraser, A.
Workshop on Technologies for Machine Translation of Low-Resource Languages@EACL 2023

11. m^4 Adapter: Multilingual Multi-Domain Adaptation for Machine Translation with a Meta-Adapter
Lai, W., **Chronopoulou, A.**, Fraser, A.
EMNLP 2022 Findings

12. Efficient Hierarchical Domain Adaptation for Pretrained Language Models
Chronopoulou, A., Peters, M., Dodge, J.
NAACL 2022

13. Improving the Lexical Ability of Pretrained Language Models for Unsupervised Neural Machine Translation
Chronopoulou, A., Stojanovski, D., Fraser, A.
NAACL 2021

14. Reusing a Pretrained Language Model on Languages with Limited Corpora for Unsupervised Neural Machine Translation
Chronopoulou, A., Stojanovski, D., Fraser, A.
EMNLP 2020

15. Domain Adversarial Fine-Tuning as an Effective Regularizer
Vernikos, G., Margatina, K., **Chronopoulou, A.**, Androutsopoulos, I.
EMNLP 2020 Findings

16. The LMU Munich System for the WMT 2020 Unsupervised Machine Translation Shared Task
Chronopoulou, A., Stojanovski, D., Hangya, V., Fraser, A.
WMT 2020

17. An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models.

Chronopoulou, A., Baziotis, C., Potamianos, A.
NAACL 2019

18. NTUA-SLP at IEST 2018: Ensemble of Neural Transfer Methods for Implicit Emotion Classification
Chronopoulou, A.*, Margatina ,K.*, Baziotis, C., Potamianos, A.
Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis@EMNLP 2018.

19. NTUA-SLP at SemEval-2018 Task 1: Predicting Affective Content in Tweets with Deep Attentive RNNs and Transfer Learning
Baziotis, C., Athanasiou, N. , **Chronopoulou, A.**, Kolovou, A., Paraskevopoulos, G., Ellinas, N., Narayanan, S., Potamianos, A.
International Workshop on Semantic Evaluation@NAACL 2018

Teaching

Supervision of BA/MA theses at LMU Munich (2019-2023)
Tutor on courses: Information Extraction, Machine Translation at LMU Munich (2019-2023)

Academic Service

○ **Area Chair**
ACL Rolling Review (2024-)
○ **Program Committee / Reviewer**
ACL, EMNLP, NAACL, EACL, WMT, IWSLT, Repl4NLP (2018-present)

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*

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 in Athens, Greece.
Awarded an ACM-W scholarship to attend NAACL 2019 in Minneapolis, MN.
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

Languages

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