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*

- Focus: Low-Resource Machine Translation and Efficient Transfer Learning
- Supervisor: Alexander Fraser

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 Topic: *Transfer Learning with Deep Neural Networks for Sentiment Analysis and Semantic Modeling*
- Supervisor: Alexandros Potamianos

Erasmus Exchange Student Program — **Barcelona, Spain**
Polytechnic University of Catalonia (UPC) — *01/2016-06/2016*

- Relevant Coursework: Pattern Recognition, Mobile Robots and Navigation

High School Diploma — **Athens, Greece**
Lycée Léonin Nea Smirni — *09/2009-06/2012*

- Highest Honors, top 1% in national qualification exams, GPA: $19.4/20$

Professional Experience

Applied Science Intern — **Santa Clara, USA**
Amazon Web Services — *08/2022-12/2022*

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

Research Intern — **Seattle, 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, 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, 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.**, Peters, M., Fraser, A., Dodge, J. (2023). AdapterSoup: Weight Averaging to Improve Generalization of Pretrained Language Models. Findings of ACL: EACL 2023.

[2] Lai, W., **Chronopoulou, A.**, Fraser, A. (2022). $m^4Adapter$: Multilingual Multi-Domain Adaptation for Machine Translation with a Meta-Adapter. Findings of ACL: EMNLP 2022. **[paper]**

[3] **Chronopoulou, A.**, Stojanovski, D., Fraser, A. (2022). Language-Family Adapters for Multilingual Neural Machine Translation. arXiv pre-print. **[paper]**

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

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

[6] **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]**

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

[8] **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]**

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

[10] **Chronopoulou, A.***, Margatina ,K.*, Baziotis, C., Potamianos, A. (2018). Ensemble of Neural Transfer Methods for Implicit Emotion Classification. WASSA 2018. **[paper]** **[code]**

[11] 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 summit in London, UK (2019).
  Scholarship from the Hellenic AI Society to attend the 1st AthNLP Summer School in Athens, Greece (2019).
  Award from ACM-Women to attend NAACL conference in Minneapolis, MN, USA (2019).

Programming Skills

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

Languages

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