Christos Baziotis

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About Me

I am a machine learning researcher with extensive experience in both applied and open-ended research. I have a strong publication record in top NLP conferences and my background involves text generation (translation & language models), optimising models in low-resource settings and information retrieval.

Industry Experience

Samaya AI London, UK

Member of Technical Staff (founding team)

Oct 2023 - Present

- We are building a platform that turns complex financial data into actionable insights to support expert decisions.
- O Research for improving Samaya's ML stack: retrieval pipeline (models & data), agentic workflows, and LLMs.
- $\bigcirc \ \, \text{Develop methods for both end-to-end and component-level evaluation, addressing both ML\ \&\ business\ needs.}$
- O Translate ML (research) prototypes into scalable solutions and implement them in production.

Meta AI (FAIR) Menlo Park, USA (Remote)

External Research Collaborator

Jan 2022 – Apr 2022

O Resumed and concluded internship project. Published work at EMNLP 2022 (oral presentation).

Meta AI (FAIR) Menlo Park, USA (Remote)

Research Scientist (Intern)

Sep 2021 – Dec 2021

- O Solved optimization challenges enabling effective scaling of hypernetworks.
- O Achieved up to 12x parameter efficiency and enhanced performance in multilingual translation models.

Amazon AI Palo Alto, USA (Remote)

Applied Scientist (Intern)

May 2021 – *Aug* 2021

- O Investigated how neural translation models translate figurative (i.e., idiomatic) expressions across languages.
- O Proposed LitTER, the first automatic evaluation metric for literal translation errors (oral at EACL 2023).

Profile Systems and Software S.A.

Athens, Greece

Software Engineer

Apr 2014 - Jan 2016

- O Profile develops software for the Banking, FinTech & Investment Management industries.
- O Developed Axia, Profile's cloud-based solution for wealth management.

Education

University of Edinburgh

UK

Ph.D. in Computer Science

2019 - 2023

Supervisors: Barry Haddow, Alexandra Birch

Thesis: Bridging the data gap in neural machine translation

• The topic of my PhD was low-resource machine translation. I worked on semi-supervised and multilingual MT, improving parameter efficiency, scaling, and (non-parametric) retrieval.

University of Piraeus

Greece

M.Sc. in Advanced Computing & Informatics Systems, GPA: 9.46/10

2015 - 2017

- O Thesis: Sentiment Analysis in Twitter with Deep Neural Networks
- O Developed a sentiment analysis system that ranked 1st at SemEval 2017 Task 4A.

University of Piraeus

Greece

B.Sc. in Computer Science

2010 - 2014

O I majored in "Technology of Software and Intelligent Systems", which has an AI-focus curriculum.

Selected Publications

- [1]: Christos Baziotis, Biao Zhang, Alexandra Birch, Barry Haddow. "When Does Monolingual Data Help Multilingual Translation: The Role of Domain and Model Scale". NAACL 2024. [paper]
- [2]: Christos Baziotis, Prashant Mathur, Eva Hasler. "Automatic Evaluation and Analysis of Idioms in Neural Machine Translation". EACL 2023 (oral). [paper] [code]
- [3]: Christos Baziotis, Mikel Artetxe, James Cross, Shruti Bhosale. "Multilingual Machine Translation with Hyper-Adapters". EMNLP 2022 (oral). [paper] [code]
- [4]: Christos Baziotis, Ivan Titov, Alexandra Birch, Barry Haddow. "Exploring Unsupervised Pretraining Objectives for Machine Translation". ACL 2021 (Findings). [paper] [code]
- [5]: Christos Baziotis, Barry Haddow, Alexandra Birch. "Language Model Prior for Low-Resource Neural Machine Translation". EMNLP 2020 (oral remote). [paper] [code]
- [6]: Christos Baziotis, Ion Androutsopoulos, Ioannis Konstas, Alexandros Potamianos. "SEQ³: Differentiable Sequence-to-Sequence Autoencoder for Unsupervised Abstractive Sentence Compression". NAACL 2019 (oral). [paper] [code]
- [7]: Alexandra Chronopoulou, **Christos Baziotis**, Alexandros Potamianos. "An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models". NAACL 2019 (**oral**). [paper] [code]
- [8]: Katerina Margatina, Christos Baziotis, Alexandros Potamianos. "Attention-based Conditioning Methods for External Knowledge Integration". ACL 2019. [paper] [code]

Academic Experience

University of Edinburgh

UK

Teacher Assistant Jan 2022 - May 2022

- O Worked on the M.Sc. course "Natural Language Understanding, Generation, and Machine Translation"
- O Designed and organized the labs, tutorials, and assignments for the course

National Technical University of Athens (NTUA)

Athens, Greece

Research Assistant

2017 - 2019

- O Research in text generation and transfer learning that led to several publications
- O Teacher Assistant in Speech and Language Processing course
- O Lead of the NTUA-SLP Team for SemEval 2018 and achieved top-scoring results at Tasks 1, 2, 3

Institute of Communication and Computer Systems (ICCS)

Athens, Greece

Research Assistant

2017 - 2019

- O Worked on the project "BabyRobot: Child-Robot Communication and Collaboration" (EU Horizon 2020).
- O Worked on Object Recognition for enabling the robots to identify children's workspace.
- O Worked on Speech Emotion Recognition for tracking children's emotions.
- Worked on Text Affect Recognition for monitoring children's affective state.

Awards and Honors

2018: 1st Place in SemEval 2018 Task 1E: Affect in Tweets.

2018: 1st Place in BioCreative VI Precision Medicine Track, Document Triage Task.

2017: 1st Place in SemEval 2017 Task 4A: Sentiment Analysis in Twitter.

Languages

Greek (native)

English (fluent)