Christos Baziotis

London, UK

☑ christos.baziotis@gmail.com⑥ https://cbaziotis.github.ioin christosbaziotis⑥ Cbaziotis⑥ Google Scholar

About Me

I am a researcher working at the intersection of machine learning and natural language processing. My interests include text generation (e.g., summarization and machine translation), information retrieval, and enabling models to learn with limited supervision by extracting knowledge from unlabeled data.

Industry Experience

Samaya AI London, UK

Member of Technical Staff (founding team)

Oct 2023 - Present

- O Research for improving Samaya's ML stack focusing on our retrieval pipeline, agentic workflows, and LLMs.
- O Develop methods to evaluate our system both end-to-end and at the component level to facilitate ML research.
- $\,\circ\,$ Translate our ML research 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 Research Palo Alto, USA (Remote)

Applied Scientist (Intern)

May 2021 – *Aug* 2021

- ${\color{blue} \bigcirc} \ \, \text{Investigated how neural translation models translate figurative (i.e., idiomatic) expressions across languages. }$
- O Proposed LitTER, the first automatic metric for measuring 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

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
- $\,\circ\,$ 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.
- O 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 speaker)

English (fluent)