Christos Baziotis

London, UK

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About Me

I am a machine learning researcher with a background in translation & language models, large-scale pretraining, synthetic data generation, knowledge retrieval, and model evaluation. During my PhD, I interned at Meta AI and Amazon AI, leading projects that resulted in top-tier publications. After completing my PhD, I joined Samaya AI as a founding team member. I focus on search and evaluation, translating research into business impact for our knowledge discovery platform.

Industry Experience

Samaya AI London, UK

Member of Technical Staff – Research (Founding Team)

Oct 2023 - Present

Our platform is transforming decision-making for top financial firms, like Morgan Stanley. We have multi-million dollar revenues and we are backed by GenAI leaders, with Eric Schmit (former Google CEO) as the lead investor.

- O Developed models for query understanding and search orchestration (RL) to support RAG and LLM Agents.
- O Component-level and end-to-end evaluation of our pipeline: synthetic data, reference-free methods (LLM-as-a-Judge), novel datasets & metrics to measure the completeness, factuality and accuracy of LLM outputs.

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

- Solved optimization challenges that unlocked the scaling of hypernetworks to large sizes.
- Achieved up to 12x parameter efficiency and improved translation quality across 100+ language pairs.

Amazon AI Palo Alto, USA (Remote)

Applied Scientist (Intern)

May 2021 - Aug 2021

O Created 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 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

 $\bigcirc \ \, \text{Research in low-resource (semi- and unsupervised) large-scale multilingual machine translation}. \\$

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 (developed model that ranked 1st at SemEval2017)

University of Piraeus

Greece

B.Sc. in Computer Science

2010 - 2014

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

- 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

- 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

Worked on the EU Horizon 2020 project BabyRobot to develop a multimodal system for child-robot interaction.

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.

Technical Skills

Languages/Tools: Python, Shell Scripting (Bash), Git, Docker

ML Frameworks and Libraries: PyTorch, HuggingFace Transformers, FairSeq, FAISS