# **Christos Baziotis**

CONTACT INFORMATION

github.com/cbaziotis
papers (Google Scholar)

☑ christos.baziotis@gmail.comlinkedin.com/christosbaziotis

RESEARCH INTERESTS

My research focuses on the intersection of Machine Learning and Natural Language Processing. I am interested text generation, multilinguality, and enabling models to learn with limited supervision by leveraging prior knowledge from unlabeled data.

**EDUCATION** PhD Candidate

2019 - Present

University of Edinburgh (ILCC), UK

Supervisors: Barry Haddow, Alexandra Birch

· My PhD topic is low-resource machine translation (MT). I have worked on semi-supervised and multilingual MT, improving parameter efficiency, scaling, and (non-parametric) retrieval.

## MSc in Advanced Computing and Informatics Systems

2017

University of Piraeus, Greece (GPA 9.46/10)

· I worked on sentiment analysis & designed a model that d 1st at Semeval 2017 Task4.

# **BSc in Computer Science**

2014

University of Piraeus, Greece

WORK EXPERIENCE

#### **External Research Collaborator**

Meta AI (FAIR) at Menlo Park, CA, USA (remote)

· I resumed and concluded my internship project that was accepted to EMNLP 2022 (oral).

#### **Research Scientist Intern**

Sep 2021 - Dec 2021

*Jan 2022 - Apr 2022* 

Meta AI (FAIR) at Menlo Park, CA, USA (remote)

· I worked on (massively) multilingual translation and showed how to effectively scale hyper-networks and use them to improve parameter efficiency (up to 12x) and performance.

### **Applied Scientist Intern**

*May* 2021 - *Aug* 2021

Amazon Research at Palo Alto, CA, USA (remote)

 $\cdot$  I analyzed how models handle the translation of figurative language and proposed LitTER, the first automatic metric for measuring literal translation errors (accepted at EACL 2023).

### **Software Engineer**

Apr 2014 - Jan 2016

Profile Systems and Software S.A., Athens, Greece

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

# SELECTED PUBLICATIONS

**Christos Baziotis**, Prashant Mathur, and Eva Hasler. "Automatic Evaluation and Analysis of Idioms in Neural Machine Translation". EACL 2023. [paper] [code]

(see full list in Google Scholar)

**Christos Baziotis**, Mikel Artetxe, James Cross, and Shruti Bhosale. "Multilingual Machine Translation with Hyper-Adapters". EMNLP 2022 (**oral**). [paper] [code]

**Christos Baziotis**, Ivan Titov, Alexandra Birch, and Barry Haddow. "Exploring Unsupervised Pretraining Objectives for Machine Translation". ACL 2021 (Findings). [paper] [code]

Christos Baziotis, Barry Haddow, and Alexandra Birch. "Language Model Prior for Low-Resource Neural Machine Translation". EMNLP 2020. [paper] [code]

**Christos Baziotis**, Ion Androutsopoulos, Ioannis Konstas, and Alexandros Potamianos. "SEQ<sup>3</sup>: Differentiable Sequence-to-Sequence-to-Sequence Autoencoder for Unsupervised Abstractive Sentence Compression". NAACL 2019 (**oral**). [paper] [code]

Alexandra Chronopoulou, **Christos Baziotis**, and Alexandros Potamianos. "An Embarrassingly Simple Approach for Transfer Learning from Pretrained Language Models". NAACL 2019 (**oral**). [paper] [code]

Katerina Margatina, **Christos Baziotis**, and Alexandros Potamianos. "Attention-based Conditioning Methods for External Knowledge Integration". ACL 2019. [paper] [code]

Christos Baziotis, Nikos Athanasiou, Alexandra Chronopoulou, Athanasia Kolovou, Georgios Paraskevopoulos, Nikolaos Ellinas, Shrikanth Narayanan, and Alexandros Potamianos. "NTUA-SLP at SemEval-2018 Task 1: Predicting Affective Content in Tweets with Deep Attentive RNNs and Transfer Learning". SemEval (NAACL) 2018 — 1st place at Task1E. [paper] [code]

**Christos Baziotis**, Nikos Pelekis, and Christos Doulkeridis. "DataStories at SemEval-2017 Task 4: Deep LSTM with Attention for Message-level and Topic-based Sentiment Analysis". SemEval (ACL) 2017 — **1st place at Task4A**. [paper] [code]

## RESEARCH EXPERIENCE

#### **Teacher Assistant**

Jan 2022 - May 2022

University of Edinburgh (ILCC), UK

· I designed and organized the labs, tutorials, and assignments for the M.Sc. course "Natural Language Understanding, Generation, and Machine Translation".

Research Assistant 2017 - 2019

National Technical University of Athens (NTUA), Greece

- · I did research in text generation and transfer learning that led to several publications
- · I worked as Teacher Assistant in Speech and Language Processing course
- $\cdot$  I was the leader of the NTUA-SLP Team for SemEval 2018, and we achieved top-scoring results at Tasks 1, 2, 3

Research Assistant 2017 - 2019

Institute of Communication and Computer Systems (ICCS), Athens, Greece

I worked at the project "BabyRobot: Child-Robot Communication and Collaboration":

- · Object Recognition, for enabling the robots to identify children's workspace.
- · Speech Emotion Recognition, for tracking children's emotions.
- · Text Affect Recognition, for monitoring children's affective state (ASR transcripts).

### COMPETITIONS

Before my PhD I participated in several shared tasks and achieved top-scoring results:

- · 1st place in Semeval 2017, Task4A "Sentiment Analysis in Twitter"
- · 1st place in Semeval 2018, Task1E "Affect in Tweets"
- · 1st place in BioCreative VI Precision Medicine Track, "Document Triage Task"
- · 2nd place in Semeval 2017 Task4 [B, C, D] (Sentiment Analysis), Semeval 2017 Task6A (Humor), Semeval 2018 Task2 (Emoji Prediction), Semeval 2018 Task3 (Irony Detection)

# OPEN-SOURCE PROJECTS

**ekphrasis** (600+ stars in GitHub)

Text processing tool, targeted at social media texts (e.g. Twitter)

**NeAt-Vision** (240+ stars in GitHub)

Visualization of the behaviour of NLP deep-learning models (attention, predictions, etc.)

# PROGRAMMING SKILLS

PROGRAMMING Proficient: Python (machine learning stack; PyTorch, NumPy/SciPy, scikit-learn), JavaScript

(front-end stack; AnglularJS, VueJS)

Familiar: Java, C/C++, SQL, RegEx, Linux Shell