

# Maha Elbayad

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🐙 [elbayadm.github.io](https://github.com/elbayadm)

Updated on November 13, 2020

## EDUCATION

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**University Grenoble Alpes, Grenoble, France** *November 2016 - June 2020*

Ph.D in Applied Mathematics & Computer Science

Working on neural machine translation under the supervision of Jakob Verbeek & Laurent Besacier.

Ph.D funded by the labex Persyval-lab.

**ENS Paris-Saclay, Paris area, France** *2015-2016*

M.S. in Applied mathematics, vision and machine learning (MVA)

**Ecole CentraleSupélec, Paris area, France** *2012-2016*

M.S. in Applied mathematics.

**Classes Préparatoires aux Grandes Écoles, Agadir & Rabat, Morocco** *2010-2012*

Intensive training in Mathematics and Physics to prepare for competitive, national entrance exams for French leading schools.

## GRANTS

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French Government's Excellence-Major Scholarship *2012-2016*

## RESEARCH EXPERIENCE

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**Facebook AI Research (FAIR)** January 2019 - June 2019

*Research intern*

*Menlo Park, CA*

Host: Michael Auli, Research Scientist

Depth-adaptive decoding for machine translation.

**Dassault Systèmes** April 2016 - September 2016

*Research intern*

*Paris area, France*

Advisors: Meriem Bendriss, Ph.D & Nikos Paragios, Professor

Learn a metric for multimodal retrieval with siamese networks in order to find 3D objects similar to a query image in 2D

**Safran-Morpho (now Idemia)** September 2015 - February 2016

*Student Research Training*

*Paris area, France*

Advisors: Catherine Herold, Research Engineer & Nikos Paragios, Professor

Training convolutional neural networks on facial images with noisy labels to detect eyeglasses.

## PUBLICATIONS

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### **Online Versus Offline NMT Quality: An In-depth Analysis on English-German and German-English.**

Maha Elbayad, Michael Ustaszewski, Emmanuelle Esperança-Rodier, Francis Brunet Manquat, Jakob Verbeek, Laurent Besacier.

COLING 2020, virtual event.

<https://arxiv.org/abs/2006.00814>

### **Efficient Wait-k Models for Simultaneous Machine Translation.**

Maha Elbayad, Laurent Besacier, Jakob Verbeek.

INTERSPEECH 2020, virtual event.

<https://arxiv.org/abs/2005.08595>

### **ON-TRAC Consortium for End-to-End and Simultaneous Speech Translation Challenge Tasks at IWSLT 2020.**

Maha Elbayad, Ha Nguyen, Fethi Bougares, Natalia Tomashenko, Antoine Caubrière, Benjamin Lecouteux, Yannick Estève, Laurent Besacier.

IWSLT 2020, virtual event.

<https://www.aclweb.org/anthology/2020.iwslt-1.2/>

### **Depth-adaptive Transformer.**

Maha Elbayad, Jiatao Gu, Edouard Grave, Michael Auli.

ICLR 2020, virtual event.

<https://openreview.net/forum?id=SJg7KhVKPH>

### **Pervasive Attention: 2D Convolutional Neural Networks for Sequence-to-Sequence Prediction.**

Maha Elbayad, Laurent Besacier, Jakob Verbeek.

CoNLL 2018, Brussels, Belgium.

<https://www.aclweb.org/anthology/K18-1010> code: <https://github.com/elbayadm/attn2d>

### **Token-level and sequence-level loss smoothing for RNN language models.**

Maha Elbayad, Laurent Besacier, Jakob Verbeek.

ACL 2018, Melbourne, Australia.

<https://www.aclweb.org/anthology/P18-1195>

## PROFESSIONAL ACTIVITIES

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### **Peer reviewing**

*2019-2020*

AAAI, ACL, CVPR, COLING, ICCV, IEEE TNNLS, NeurIPS

### **Seminar speaker at Naver Labs Europe**

*Sept 2018*

Breaking the encoder-decoder paradigm: Pervasive Attention - 2D Convolutional Neural Networks for Machine Translation.

### **Expert panelist**

*July 2020*

The IWSLT 2020 panel for simultaneous translation

<http://iwslt.org>

### **Teaching assistant** at UIT2, Grenoble, France

*2019-2020*

- Introduction to Statistics and Probabilities.
- Basics of Linear Algebra.

## LANGUAGES

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Arabic (native), French (near native), English (fluent)

## TECHNICAL SKILLS

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**Programming:** Python, R, Matlab, Javascript, CSS/HTML

**Frameworks:** PyTorch, Theano, Caffe.

**Tools:** GNU/Linux, Vim, Git, L<sup>A</sup>T<sub>E</sub>X