# Álvaro Peris

lvapeab@gmail.com  $\bullet$  Personal website  $\bullet$  Github  $\bullet$  Google Scholar  $\bullet$  LinkedIn

Machine learning engineer/data scientist. PhD in computer science, involving the use of deep learning for sequence-to-sequence modeling, human–computer interaction, system adaptation and multimodality. I published my research in international conferences and journals and open-sourced toolkits for NMT and visual captioning.

As a machine learning engineer, I worked in startup environments, researching, developing and deploying machine learning systems, related to speech recognition and analysis, NLP and information extraction from documents. I enjoy tackling challenging problems, analyzing and deploying effective solutions to them. I also monitor currently deployed systems, evaluate and continuously improve them.

## PROFESSIONAL EXPERIENCE

2019 – 2020 Sonia Labs.

Machine learning engineer.

2015 – 2019 PRHLT Research Center, Universitat Politècnica de València.

Researcher (superior technician).

2014 – 2015 PRHLT Research Center, Universitat Politècnica de València.

Student researcher.

## **EDUCATION**

2015 - 2019 PhD in Computer Science.

Universitat Politècnica de València.

EXCELLENT CUM LAUDE.

2014 – 2015 MSc in Artificial Intelligence, Pattern Recognition

AND DIGITAL IMAGING.

Universitat Politècnica de València.

GPA: 9.2/10.

2008 - 2014 BSc in Computer Engineering.

Universitat Politècnica de València.

GPA: 7.5/10.

#### LANGUAGES

Spanish Mother tongue.

Catalan Full professional competence.

ENGLISH Advanced (Cambridge Advanced English Certificate).

GERMAN Beginner.

Other

#### TECHNICAL SKILLS

Programming languages Machine learning expertise Machine learning libraries Python, Java, UNIX shell scripting, Matlab, Haskell.
Deep learning, NLP, CV, seq2seq, document analysis.
Tensorflow, PyTorch, Keras, Scikit-learn, Pandas, spaCy.
Git, CI/CD, Bazel, Docker and Kubernetes (limited expertise).

## SCIENTIFIC OPEN-SOURCE LIBRARIES

NMT-Keras Fully-fledged neural machine translation toolkit.

Interactive Keras Captioning Interactive multimedia captioning.

ABiViRNet Neural video captioning.

sentence-selection. Neural sentence classifiers, for data selection.

VIBIKNet Visual question answering.

TMA Egocentric video captioning with extended context.

#### SCIENTIFIC COMMITTEES

Served as reviewer for several journals, including: Information Processing & Management, Machine Translation Journal, Language Resources and Evaluation.

### SUPERVISED STUDENTS

- Luis Cebrián. Online Learning in Neural Machine Translation. MSc thesis, 2017.
- Antonio M. Larriba. Character-based Neural Machine Translation. MSc thesis, 2017.

## SCIENTIFIC Publications (selection)

- $\rightarrow$  Complete list of publications.
- Álvaro Peris. Interactivity, Adaptation and Multimodality in Neural Sequence-to-sequence Learning. PhD dissertation, 2019.
- Álvaro Peris and Francisco Casacuberta. A Neural, Interactive-predictive System for Multimodal Sequence to Sequence Tasks. In *Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL), System Demonstrations*, pp. 81–86, 2019.
- Miguel Domingo, Mercedes García-Martínez, Álvaro Peris, Alexandre Helle, Amando Estela, Laurent Bié, Francisco Casacuberta and Manuel Herranz. Incremental Adaptation of NMT for Professional Post-editors: A User Study. In Proceedings of Machine Translation Summit XVII Volume 2: Translator, Project and User Tracks, pp. 219–227, 2019.
- Álvaro Peris and Francisco Casacuberta. Online learning for effort reduction in interactive neural machine translation. In Computer Speech & Language, vol. 58, pp. 98–126, 2019.
- Álvaro Peris and Francisco Casacuberta. Active Learning for Interactive Neural Machine Translation of Data Streams. In *Proceedings of the 22nd Conference on Computational Natural Language Learning (CoNLL)*, pp. 151–160, 2018.
- Marc Bolaños, Álvaro Peris and Francisco Casacuberta, Sergi Soler y Petia Radeva. Egocentric Video Description based on Temporally-Linked Sequences. In *Journal of Visual Communication* and *Image Representation*, vol. 50 pp. 205-216, 2018.
- Álvaro Peris, Mara Chinea-Ríos, and Francisco Casacuberta. Neural Networks Classifier for Data Selection in Statistical Machine Translation. In The Prague Bulletin of Mathematical Linguistics, vol. 108, pp. 283–294, 2017.
- Álvaro Peris, Miguel Domingo and Francisco Casacuberta. Interactive Neural Machine Translation. In Computer Speech & Language, vol. 45, pp. 201–220, 2017.
- Álvaro Peris, Marc Bolaños, Petia Radeva, and Francisco Casacuberta. Video Description using Bidirectional Recurrent Neural Networks. In *Proceedings of the 25th ICANN*, vol 2, pp. 3–11. 2016.