# Álvaro Peris

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Machine learning engineer/data scientist. I hold a 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, developing and deploying machine learning systems, related to speech recognition, NLP and document analysis. I enjoy tackling challenging problems, analyzing and deploying effective solutions to them. I also like monitoring current systems, evaluating metrics and continuously improving them.

## Professional Experience

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| 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

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| 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

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| Spanish | Mother tongue. |
| Catalan | Full professional competence. |
| English | Advanced (Cambridge Advanced English Certificate). |
| German | Beginner. |

## Technical Skills

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

## Open source libraries

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| NMT-Keras | Fully-fledged neural machine translation toolkit. |
| Interactive Keras Captioning | Interactive multimedia captioning. |
| ABiViRNet | Neural video captioning. |
| sentence-selectioNN | 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.

## Scientific Publications (selection)

- **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** and Francisco Casacuberta. NMT-Keras: a Very Flexible Toolkit with a Focus on Interactive NMT and Online Learning. *The Prague Bulletin of Mathematical Linguistics*, vol. 111 pp. 113-124, 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.

- → Full list of publications.