# Francisco B. Valero (Fran Valero)

https://franbvalero.github.io • franbvalero@gmail.com • (+34) 678 81 24 74 Barcelona, Spain

# Work Experience

• Applied Scientist

Amazon.com, Inc.

Applying NLP and ML techniques to customer reviews on Community Shopping

03/2022 – Ongoing
Barcelona, Spain

managed by Hani Al-Shater.

Data Scientist
 Amazon.com, Inc.
 Barcelona, Spain

Working on two science projects in the Search Science and AI department managed by Lluís Màrquez:

- Building an open source search evaluation dataset.
   This work was presented as the dataset for the Amazon Product Search competition in the Conference on *Knowledge Discovery and Data Mining* (KDD 2022).
- Applying knowledge distillation based on few shot learning for short text generation.

### Research & Development Intern Deezer S.A.

11/2020 – 05/2021 Paris, France

Used NLP and ML techniques to encode the podcast's textual metadata for searching supervised by Elena V. Epure.

The work performed during this internship was accepted as a full paper in the *European Conference on Information Retrieval* (ECIR 2022).

• Research Engineer Intern

06/2020 - 09/2020

Kustomer, Inc. (Acquired by Meta Platforms, Inc.)

Madrid, Spain

Worked on fine-tune with pre-trained Transformers models for intent detection managed by Víctor Peinado.

• Research Engineer

04/2019 - 09/2019

Department of Software and Computing Systems, University of Alicante

Alicante, Spain

Used ML models for estimating the quality of the machine translation systems supervised by Mikel L. Forcada for the *EFFORTUNE Spanish project* (TIN2015-69632-R).

• Research Intern 01/2018 – 04/2019

**Department of Software and Computing Systems, University of Alicante**Worked on two research projects supervised by Juan Antonio Pérez-Ortiz and Felipe Sánchez-Martínez:

Alicante, Spain

- Used neural models as RNN and Seq2Seq for sequence labeling problems.
- Used cross-lingual word embeddings for word translation.

# **Educational Background**

• Master's Degree in Artificial Intelligence, Pattern Recognition and Digital Imaging Polytechnic University of Valencia

09/2019 – 09/2020 Valencia, Spain

Master's Thesis: Data augmentation for text classification

Advisor: Francisco Casacuberta

• Bachelor's Degree in Compute Science Engineering University of Alicante

09/2014 - 02/2019

Alicante, Spain

High Academic Performance Group

Bachelor's Thesis: Neural Part-of-Speech tagging

Advisors: Juan Antonio Pérez-Ortiz and Felipe Sánchez-Martínez

# **Conference papers**

- Francisco B. Valero, Marion Baranes, Elena V. Epure. Topic Modeling on Podcast Short-Text Metadata. In 44th European Conference on Information Retrieval (ECIR 2022), Stavanger, Norway.
- Chandan K. Reddy, Lluis Marquez, Fran Valero, Nikhil Rao, Hugo Zaragoza, Sambaran Bandyopadhyay, Arnab Biswas, Anlu Xing, Karthik Subbian. Shopping Queries Dataset: A Large-Scale ESCI Benchmark for Improving Product Search . In 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2022), Washington DC, U.S.

#### Grants

• Research Initiation Grant, Ministerio de Educación Cultura y Deporte de España (MECD)

2018/2019

# Courses and training

• Deep Learning Specialization, online at Coursera, 2018.

# Languages and Technologies

**Programming Languages:** Python, LATEX, Java, C/C++, bash

Technologies: NumPy, PyTorch, scikit-learn, NLTK, Transformers, SciPy, pandas, linux terminal, Git, Docker

Natural Languages: Native in Spanish and professional working proficiency in English

#### **Honors and Awards**

• 3rd place in PAN@CLEF 2020 Author Profiling Competition

#### Reference list

• Hani Al-Shater (haniahma@amazon.com)

Amazon.com, Inc. Berlin, Germany

• Lluís Màrquez (lluismv@amazon.com)

Amazon.com, Inc. Barcelona, Spain

• Elena V. Epure (epure@deezer.com)

Deezer S.A. Paris, France

• Víctor Peinado (victor.peinado@kustomer.com)

Kustomer, Inc. Madrid, Spain

• Mikel L. Forcada (mlf@dlsi.ua.es)

University of Alicante Department of Software and Computing Systems Alicante, Spain

• Juan Antonio Pérez-Ortiz (japerez@dlsi.ua.es)

University of Alicante

Department of Software and Computing Systems

Alicante, Spain