

Jorge Diz Pico | Backend software engineer

currently based in Madrid – Spain

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Work experience

Backend software engineer

Feb. 2018 - now

Telefónica Digital, Madrid, Spain

As part of the Messaging and Realtime teams inside Project Novum, I am tasked with **autonomous coding in Erlang, PHP and Kotlin** for our microservices architecture, including the chat, storage and push notification components. Due to serving ten million customers worldwide, I must keep attention to scalability as well as to **coordinated development** for inter-team features and improvements. I also take care of basic **service deployment in Kubernetes**, assist with **tech spec writing** and help weed out candidates in the first stages of the hiring process.

Fullstack software engineer

Feb. 2015 - Dec. 2017

Universitat Pompeu Fabra, Barcelona, Spain

Hired as research staff for the following **NLP projects**, among others:

- **LPS-Bigger** (Prof. Núria Bel): Researched and implemented a Python pipeline for **classification of social media texts** into marketing categories. The algorithm I designed combined NLP preprocessing, **word embeddings** (word2vec) and machine learning classifiers (SVM) to model **sentiment and topic analysis**. The resulting component had to be architected and deployed **in coordination with partners** such as Indra Software Labs or HAVAS MEDIA Group.
- **INSIGHT** (Prof. Luc Steels): Designed and developed **d3.js Javascript animations** of the evolving neurodynamics from agent-based experiments on contact-learning grammar. Made small improvements and adjustments on the **underlying Lisp base framework**.

Erlang backend engineer

Nov. 2012 - Jan. 2015

Nomasystems S.L., A Coruña and Madrid, Spain

Erlang consultancy for international corporations:

- **Inditex**: Produced the initial prototype for an Erlang **parallel architecture** for text notification storage, queuing (**RabbitMQ**) and **mobile push delivery**, serving millions of customers, while accounting for future customer scalability as well existing technical requirements such as hot deployment.
- **Tuenti (Telefónica Digital)**: Developed and scaled new architectural features for the central chat dispatching system such as **VoIP calls** or **performance optimization** reworks in both software and protocol. One of them reduced login time by **a factor of 7**. The production cluster comfortably served more than a **million concurrent users**.

Intern machine learning developer

Nov. 2011 - May 2012

Jobssy S.L.

Researched and developed a bidirectional **recommendation engine** to match job offers and job candidates, according to management and client specs. The software was developed in **Java** and was based on **Apache Mahout** for document clustering and **Apache Solr** for fulltext search.

Education

Computer Science and Engineering degree 300 credits

Universidade da Coruña, A Coruña, Spain

- Degree thesis: *Analysis, design and implementation of a push notification framework*

MSc in Computer Science: Algorithms, Languages and Logic 120 credits

Chalmers University of Technology, Göteborg, Sweden

- Master thesis: *A natural language interface for a music database*

MA in Theoretical and Applied Linguistics 60 credits

Universitat Pompeu Fabra, Barcelona, Spain

- Master thesis: *Lexical variation and innovation: a study of ideological factors*

PhD in Translation and Language Sciences (incomplete) 2016-2018

Universitat Pompeu Fabra, Barcelona, Spain

- Doctoral thesis proposal: *Neology as seen by pragmatics: functions and transgressions*

Other merits

2016: 8.000€ grant from A Coruña's Provincial Government for the development of a prototypal NLP library for text processing and automatic neologism extraction.

2012: First place in the level generation track for the Mario AI Championship with an adaptive procedural algorithm based on a custom grammatical representation of gameplay elements.

Certifications: deeplearning.ai (Coursera) Specialization on Neural Networks and Deep Learning, University of Adelaide (edX) course on endangered language revivalistics.

Public speaking: open events (Lenguando, IgniteBCN), conferences (1st International Congress on Language Revitalization, Sociolinguistics Summer School), press (El Progreso, Luzes, El Confidencial, El Español), radio (La SER)

Languages

High: Galician (native), Spanish (native), English (C2 Cambridge certified)

Medium: Catalan (B2 certified), French (B2), Portuguese (B1)

Basic: Swedish, Asturian, German