Alejandro Roca Arroyo

AI/ML Engineer

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🪪 Profile

Problem-solving, pragmatic and curious.

Currently working as an AI engineer with tasks like:

- Building custom **ML pipelines** and adapting them to TFX/Kubeflow
- New Materials discovery through **Generative DL**
- **Computer Vision** with Tensorflow and PyTorch/Fastai
- Model Deployment with **TF serving**
- Use GCP and AWS **cloud ML tools**
- **Project management**
- **Server management**
- New business **proposals**
- **Learning** whatever comes around!

🧠 Skills

Deep Learning (CNNs, RNNs, Generative Deep Learning (GANs, Autoencoders))

Computer Vision (Classification, Object Detection, Segmentation)

ML Frameworks (Tensorflow, Fast.AI, PyTorch, Kubeflow, AWS SageMaker Autopilot, Google Cloud Platform Vision AI)

Data Science | **Statistical Modeling**

Python | **R** | **Go** | **Linux**

Other Tools (Git, Docker, Jupyter Notebooks, Gitlab CI, Jira, Markdown, MongoDB, pylint, pdoc, VS code, TDD)

💼 Experience

Oct 2019 – present
Madrid, Spain

Artificial Intelligence Engineer, *HI Iberia* 🔗
- Project-oriented team working on state-of-the-art solutions and technology demonstrators for AI applications in different industries.
  - Beat the company baseline performance on object detection and segmentation models within the first three months.
- Design and Development of Computer Vision applications for Defense, responsible for the AI models.
  - Set the standard DL pipeline architecture based on modular components and configuration files.
- Technical Lead in a project on New Materials Discovery to get better batteries.
  - Organizing a 3+person team setting tasks with a project management software, setting Gitlab Repositository (+CI), Project Design, best practices, etc.
- Broad experience with technical and dissemination presentations.

Jan 2019 – Jun 2019
Aarhus, Denmark

Master Thesis, *Aarhus University*
"Identifying signatures of human epigenetic modifications among tissues"

Apr 2016 – Feb 2017
Madrid & Zagreb

Bachelor Thesis, *Universidad Politécnica de Madrid & University of Zagreb*
Modelling Epigenetic Mechanisms of alternative Splicing

Apr 2017 –	**English Teacher,** *Centro de Extensión Educativa y Formativa*
Jul 2017	Substitution as an English Teacher for 3 years-old, primary and high school
Madrid, Spain	students, as well as adults.

🎓 Education

Aug 2017 –	**Msc. Bioinformatics,** *Aarhus University*
Jun 2019	Central courses include Algorithms in Bioinformatics, Population Genomics,
Aarhus, Denmark	Next-Generation Sequencing, and Advanced Statistical Methods in
	Bioinformatics.

Sep 2012 –	**Bsc. in Biotechnology,** *Universidad Politécnica de Madrid*
Jun 2017	Following Computational Biotechnology Itinerary
Madrid, Spain	

Sep 2015 –	**Erasmus Exchange,** *University of Zagreb*
Jul 2016	Erasmus exchange student and Bachelor Thesis
Zagreb, Croatia	

🌐 Languages

English
Highly proficient in speaking and writing

Spanish
Native

🏅 Awards

Best Performance Model in the final assignment of "Statistical and Machine Learning in Bioinformatics",
BiRC, Aarhus University

🎸 Interests

Self-Hosting Services for Family and Friends *(Nextcloud, Bitwarden, WireGuard and growing!)*

Kubernetes | **Hiking** | **Gaming** | **Travelling**