FEDERICO BECONA

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Passionate about collaborating to create impactful solutions and continuously learning new technologies.

Areas of Knowledge

- Generating **impactful** and **scalable Machine Learning** solutions in production at the **largest tech company** in Latin America for the last two years with models and APIs **receiving 100k+ RPMs**.
- Specialized in **Natural Language Processing** and **Computer Vision** problems by using techniques such as **preprocessing, vectorization, embeddings generation** and models like **FNN, CNN, XGBoost, Random Forest, Bert, Open Clip, Open CV, FastText, ScaNN, FAISS**.
- **Experience with backend** frameworks like Java Spring, Python Django and Node JS.
- Skilled in handling extensive data from **data warehouses** (BigQuery), **relational databases** (MySQL, PostgreSQL), and **NoSQL databases** (MongoDB).
- Experience in **designing and implementing both synchronous and asynchronous services**, utilizing batch processing, jobs and message queues.
- Strong **git** knowledge.
- Good technical background from my **bachelor's degree in Computer Science.**

Professional Experience

Mercado Libre – Machine Learning Developer (May 2022 – Present)
Designing and implementing end to end Machine Learning solutions regarding Natural Language Processing and Computer Vision with backend services for synchronous and asynchronous consumption of the models.
- Designed and implemented a bot to enhance data for product attributes asking sellers about their publications with templates depending of the kind of product, preprocessing their answers, using NLP models for extracting values from those texts and then voting between similar publications to get the best value to be applied for all similar publications with the possibility of reasking the sellers and voting again if no good enough value was found. Metric: +12k new values were obtained.
- Implemented a solution for image preprocessing and embedding generation in a batch concurrent process, to later be used in a synchronous API with +60k RPMs calls to compare images in the aim of finding duplicate publications and grouping similar publications by their images. Metric: +35k publications were found as duplicates.
- Designed and implemented an alternative solution to a legacy non-scalable NLP solution replacing a RNN with a transformer model.
- Participated in a solution to cluster similar text attributes to find keywords in descriptions of publications provided by users.

Education
Bachelor of Science - Computer Science (2018 - 2022)
Catholic University of Uruguay, Montevideo, Uruguay
Thesis: "Green Manager". An environmental indicator management web platform for DERES, a network of companies (including Coca Cola, Nestlé, Unilever, Roche) committed to sustainable development.

Projects
My machine learning portfolio shows a variety of projects including ones from the Artificial Intelligence course that I took in college, where I received the highest grade in class. The portfolio website was built using Angular and is available at https://federicobecona.github.io/machine-learning-portfolio/
In addition, I have developed many projects through the years covering a large range of fields such as Machine Learning, Algorithms and Data Structures, Web Programming, Databases, Security, and more. Those are available on my Github https://github.com/federicobecona

Languages
English (advanced), Spanish (native)