

Nicolas Dominutti

MACHINE LEARNING ENGINEER · DATA SCIENTIST

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Experience

Rocking Data (ML consultancy company), Sr Data Scientist | Buenos Aires, Argentina

Aug 2021 - Oct 2023

- Developed **advanced ML based solutions** to tackle different business challenges, covering from demand forecasting to clustering and recommendation systems design, highlighting some projects like:
 - Enhanced TV ad optimization for a CPG company using Catboost, resulting in a **10% increase in incoming calls** and substantial workforce time savings.
 - Improved demand forecasting (over 2,000 products) for a motorcycle spare parts seller with LightGBM, achieving a **5% higher accuracy** compared to the baseline ARIMA model.
 - Implemented early loan default detection using survival analysis, leading to a **50% increase in process profits** through improved loan sales to a third party.
- Responsible not only for developing **technical solutions** but also for maintaining continuous communication with the customer, which includes **presenting results periodically**.
- Proposed and executed internal projects such as developing a library to expedite Data Scientists' work and creating an **AWS CI/CD pipeline for custom SageMaker images built on Docker**, helping to close the gap between Data Scientist and MLOps engineers.
- Migrated to the role of Technical Lead for several projects over the last six months, **leading teams of up to three members** to ensure project success

Johnson & Johnson, Data & Business Analyst | Buenos Aires, Argentina

Aug 2019 - Jul 2021

- Johnson & Johnson Consumer Health
 - Developed a Python **ETL pipeline** for data from different Market/Media data sources & standardized update process for non-technical end users on Streamlit.
- Johnson & Johnson Medical Devices
 - Lead a public data gathering MVP involving development of a **webscraping and data preprocessing pipeline** with BeautifulSoup & **Power BI reporting** analytics environment to boost business decisions.
- The Janssen Pharmaceutical Company of J&J
 - Lead a new S&OP process to **improve business forecasting accuracy and timing**. Lead a PoC on demand modeling.

Education

GPA: 9.5/10 | **MSc in Data Science**, Universidad de San Andrés | Buenos Aires, Argentina

Mar 2022 - Nov 2023

Certifications: AWS Certified Machine Learning - Specialty (Oct 2023)

Courses: Deep Learning Specialization (Coursera) | Machine Learning Specialization (Coursera) | Unit Testing for Data Science with Python (DataCamp) | Data Science with Python (DataCamp) | First (FCE) – CEFR level B2 (U. of Cambridge)

Skills

| | |
|--------------------------------|---|
| Programming | Python (Numpy, Scipy, Pandas, Scikit-learn, Pytorch, etc), SQL, Bash |
| Software | Linux, AWS (SageMaker, EC2, S3, ECR, Lambda, CloudFormation, etc), Docker |
| Machine Learning | Demand Forecast, Clustering, Recommendation Systems, Churn prediction, Anomaly detection, Time Series |
| Artificial Intelligence | Computer Vision, NLP |
| Cloud computing | ETL, processing jobs, training jobs, model deploy, endpoint deploy, pipelines, infrastructure as code (IaC) |

Projects

Fine-tune and deploy a Real-ESRGAN model using AWS SageMaker and custom containers

Topics: AWS Computing, System Design, Computer Vision (CV), Artificial Intelligence

[Github link](#), [Medium link](#)

- Implement a full pre-processing, training and deploy pipeline
- Involves AWS EventBridge + AWS Lambda + SageMaker Pipeline to manage the next steps:
 - Processing Job: in charge of generating the training set, using a High Quality set of images stored in S3
 - Training Job: training the model
 - Model register: create a package version with the trained model

Finetune a BETO model into an NLI task to use in an STS problem

Topics: Natural Language Processing (NLP), Artificial Intelligence

[Github link](#)

- Implementation of the sentence BERT model
- Finetuned a transformer based model in an NLI (Natural Language Inference) task and then use it to get embeddings from two sentences from a STS (Semantic Textual Similarity)

Implementation of style transfer neural network

Topics: Computer Vision (CV), Artificial Intelligence

[Github link](#)

- Perform Style Transfer from one image (content image) to another (style image) -using a vgg19 as default base model-
- Create a process for video generation with the transition of the transformation.

Recommendation system implementation using AWS cloud stack

Topics: AWS Computing, System Design, Machine Learning

[Github link](#), [Medium link](#)

- Implementation of a web-ads recommendation engine ML system.
- Involves:
 - ETL & Recommendation
 - Recommendations Serving using FastAPI