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#### TECHNOLOGY **SKILLS**

Programming Languages: Proficiency with Python, Ruby, C#, C.

Operations Technologies: git, azure, aws, gcs, apache airflow, terraform

Database Technologies: MySQL, MSSQL, Redis, Postgres, Hive, PrestoDB, Pinecone

Web Frontend Technologies: VueJS, AngularJS, Bootstrap, jquery

Data Science Stack: Pandas, scikit-learn, Keras, gensim, matplotlib, pyplot, seaborn,

PySpark, pytorch

Software Engineering: OOP, agile methodologies, design patterns

# EMPLOYMENT Machine Learning Engineering, Optimization Scientist Freelancer

2020 Currently

I've developed several data projects end-to-end. Recently, with the largest spanish talking medical doctor on YouTube to create an AI that replies based on their videos. Created the fixture for the LNB/LAB/LFA basketball leagues in Argentina for the 2023/2024 season. Developed end-to-end data pipelines to predict employee issues at Lara AI prior to joining. Developed a custom model using drone and satellite imagery to optimize crops in the northern region of Argentina.

#### TA - Data Engineering

January 2024 Currently

Universidad Torcuato Di Tella

The course covers extensively relational databases and big data problems, using both SQL and NoSQL databases, as well as distributed data processing. My role is to give lectures, prepare materials, guide and help students throughout the semester.

#### Sr. Machine Learning Engineer

May 2023 Currently

Lara AI, Buenos Aires

I cover the grounds for our Data Engineering tasks, making data easily available with robust pipelines and everything Machine Learning at Lara. Custom tabular models, RAG using GPT models on Azure and Pinecone indexes, automatization of employee churn detection.

# TA - I200 - Algoritmos y Estructuras de Datos December 2022 December 2023 Universidad de San Andrés

The course focus is on low level programming of data structures using C. We also cover topics such as memory management, time/memory complexity of algorithms, graphs. I'm in charge of one of the practical slots of the course, making focus in applying the theory students learn.

#### TA - 75.06 Organización de Datos

September 2020 March 2022

Universidad de Buenos Aires

This is an introductory course to Data Science and Machine Learning. I actively create material, maintain the infrastructure for the course, give classes, prepare notebooks for reference and help with grading of practical assignments and mid terms.

Part time - Machine Learning Engineer

March 2020 Currently

Sports Analytics World

At SAW, we are building the market of sports analytics in the FIBA world. I've been part of the team fetching and consolidating several data sources, in a scalable, automated pipeline. I've helped with several ad-hoc reports and analysis for teams and coaches. Future focus is on computer vision projects to augment our data sources more efficiently.

# Data Scientist - Machine Learning Engineer November 2019 May 2023 Mutt Data

Several consultancy projects for adtech, fintech, marketplaces and other bussinesses. Development of automatic data pipelines, from data ingestion and processing to machine learning models training, deploy and monitoring. Usage of IaC on AWS for scalable resource management.

Worked as Lead Dev for over a year, dealing with customer's needs, prioritizing tasks and making architecture and technological decisions for the team.

Some side projects include Mutt Data's blog development and maintainance, ocasional talks to distribute knowledge across teams, management of Gitlab runners on AWS with Terraform and leading the development of muttlib, which serves as a playground for onboarders to learn our stack and methodologies. Worked on the revamp of the code challenge for interviews and been taking interviews for a few months, to evaluate candidates' potential. Sole developer of muttplotlib, a wrapper on top of matplotlib branded for Mutt Data.

Spearheaded the Research Squad, focusing in serving state of the art generative models through the best MLOps practices.

# Data Scientist

October 2018 July 2019

Jampp, Buenos Aires

Worked on a behavioural lookalike model to segment audiences across a market, built to be highly scalable and run on demand. RTB open market fraud analysis.

#### Data Developer

October 2017 October 2018

7puentes, Buenos Aires

Python/Ruby developer for Big Data and Data Science projects.

Improved the rate of empty queries by about 60% on an e-commerce app using word embeddings to enrich it's keywords. Built multi-label text classifiers using neural networks, improving previous bayesian models' performance by 5x. Worked on customer's data analysis in order to predict churn probability and behavior patterns. Acquired knowledge on data mining and web data extraction.

#### Full Stack Software Developer

June 2016 October 2017

C&S, Buenos Aires

. Net developer. Worked in teams developing backoffice webapps and highly-scalable, concurrent, RESTful web APIs. Collaborated on internal frameworks to simplify the process of building webapps.

# Ad Honorem TA - Algorithms & Programming II - Wachenchauzer Course $2016\,$

FIUBA, Buenos Aires

The course covers topics such as time and memory complexity, data structures and programming techniques using C. Helped assigned students through their assignments

and gave some practice classes.

# Ad Honorem TA - Algorithms & Programming I - Méndez Course 2016 FIUBA, Buenos Aires

Theory and practice lessons. The course is oriented towards teaching freshmen students about control structures, how to work with files and basic programming techniques.

# EDUCATION Software Engineering, Universidad de Buenos Aires

Expected graduation date: late 2024 (thesis pending)

2011, Pre-International Math Olympiads

2009, XV May Math Olympiads Honorable Mention

# LANGUAGES Spanish, native level

English, professional level

FCE - B2 exam passed with merits

# OTHER Collaborating Student

# **ACTIVITIES** LABDAC, FIUBA, Buenos Aires

Co-gave a talk on word embeddings and unsupervised translation. Helped develop and manage several data science related research projects.

# TALKS Airflow para Data Scientists

PvConAr, 2019

Introduction to airflow for ETFL workflows.

#### Behavioral Lookalike Model for App Advertising

Nubank Data Science & Machine Learning (São Paulo, Brasil), 2019 Building a Behavioural Lookalike Model: from PoC to prod.

# PERSONAL PROJECTS

#### • **BicisBA**, 2022 to 2023

Add predictive capabilities to Buenos Aires' bikes system. Let users find the optimal bikes station near their location to ensure they get a bike to travel the city.

# • YouConfigMe, 2020 to date

Python library to manage configuration in a pythonic fashion.

#### • PvSpark exercises, 2017 to date

Repository of solved PySpark exercises for FIUBA course 75.06 Data Organization. Using jupyter notebooks, the objective is to show different strategies and concepts associated with the Map-Reduce paradigm.

#### • fsqrt, 2016

Numerical method to calculate an IEEE-754 float number's square root. The method uses a magic constant derived based on their bit representation.

#### • **m2r2**, 2020

m2r actively maintained fork. Markdown to rst converter, useful for sphinx. Over 120k downloads per month as per this writing.

# INTERESTS

natural language processing, data science, data mining, network analysis, education, data driven journalism, performance optimization