VLADIMIRO BELLINI

Professional Profile

Professional with over 10 years of experience in data engineering, artificial intelligence, and information analysis. Specialized in data architecture, machine learning, NLP, LLMs, and data flow optimization. Experienced in open data integration, standardization, and process automation using cloud technologies and Big Data. Focused on scalable and sustainable solutions.

Professional Experience

Senior Data Engineer - Inter-American Development Bank (IDB)

- 2020 Present
 - Development of Al and NLP chatbots (RAG, LangChain, OpenAl, Azure, Spark).
 - Integration of open data standards (OCDS, EITI) and data quality management.
 - Geospatial data processing and ETL workflows with Apache Spark and Databricks.
 - Implementation of FastAPI + LangChain for natural language to SQL generation.

Data Engineer - United Nations (ECLAC)

- 2020 2022
 - Mapping, transformation, and standardization of macroeconomic data (SDMX).
 - Refactoring of data pipelines and process automation.
 - Endpoint integration and database optimization with SQL Server and Python.

Data Engineer and AI Developer - BIT-C Colombia

- May 2024 (6 months) Remote
 - Financial dialogue analysis and summarization project using Azure OpenAl and Azure Functions.
 - SQL database connection, transcript processing, value extraction, and token consumption optimization.
 - Technologies: LangChain, Azure Functions, Azure OpenAl, pyodbc, MSSQL, Pandas.

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Co-Founder & Data Engineer - Sistemas Mapache

- 2010 Present
 - Solutions in GIS, geospatial analysis, and data visualization.
 - Pipeline development with PostgreSQL, PostGIS, Airflow, and Metabase.
 - Process automation and data analysis in Linux environments.

Data Analyst - INDEC (National Institute of Statistics and Censuses)

- 2018 2020
 - Development of GIS module for the National Agricultural Census.
 - Optimization of routing and topological analysis algorithms with PGRouting.
 - Implementation of spatial analysis using PostGIS and Python.

Data Analyst in Fintech - SIISA

- 2016 2019
 - Optimization of financial scoring models through geospatial analysis.
 - Data modeling, enrichment, and normalization.
 - Implementation of scraping techniques and machine learning.

Education

Master's in Data Exploitation and Knowledge Management - Univ. Austral (2020 - 2022)
 Data & Al Strategy Program - Univ. San Andrés (2023)

Technical Skills

- Languages: Python, SQL, T-SQL, Bash, JavaScript.
- Databases: PostgreSQL, MSSQL, NoSQL
- Cloud & Big Data: Azure, Databricks, Apache Spark, FastAPI, Airflow.
- AI & NLP: LangChain, OpenAI, NLP, RAG's, LLM models.
- ETL & Data Engineering: SSIS, Great Expectations, Gitflow.

Courses & Certifications

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- LangChain for LLM Applications (DeepLearning.Al)
- Prompt Engineering with ChatGPT (DeepLearning.Al)
- Machine Learning (Stanford University)
- Big Data & Machine Learning in Google Cloud (Google)
- Apache Spark SQL for Data Analysts (Databricks)
- ETL in Python (DataCamp)

Highlighted Projects

- Al chatbot development with FastAPI and LangChain over open data.
- **Integration of LLM models into ETL processes** at IDB.
- Big Data workflow optimization with Spark and Databricks.
- Data quality automation with Great Expectations.

Alternative Projects

- TostaTetris: Experimental game using Python and Pygame, integrating a Makey Makey and a modified toaster as a controller. Repository
- Motion Déjà Vu: Loop animation device based on modified hardware and Kotlin software.

 Repository

Languages

Spanish: Native | English: Advanced

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