# Vladimiro Bellini

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Senior Data Engineer & Analytics with 10+ years of experience in building data-intensive flows, tackling challenging architectural, transformations, integrations and scalability problems. Machine learning enthusiast.

Currently working at IADB, helping with dataflows at United Nations, and pursuing a Master's Degree in Data Exploitation and Knowledge Management (Univ. Austral).

# Work Experience

## Data Engineer Consultant @ Inter-American Development Bank

#### 2020-present

- Data Engineering Consultant for Innovation in Citizen Services Division (ICS) of the Inter-American Development Bank (IADB - BID).
  - o Data Standards. OCDS, EITI. Mapping, transformation, availability.
  - Work in multiple countries.
  - Data Exploration, analytics, and endpoints Integration with governments and Process Automation. ETLs. GIS Data flows.
  - o Data use cases. Data Q&A. Six Sigma. Cleansing & Matching. Profiling.
  - Scripting, T-SQL, SSIS. Open Data Integrations (CKAN).
  - Apache Spark / Databricks dataflow. Python, MSSQL Stored Procedures.
  - Website: <a href="https://www.iadb.org/es/reforma-modernizacion-del-estado/iniciativas-pa">https://www.iadb.org/es/reforma-modernizacion-del-estado/iniciativas-pa</a> ra inversiones

# **Technologies**

Microsoft stack, Geojson, SQL, T-SQL, Store Procedures, SSIS, Cloud Azure, Databricks, Spark, C#, Python, Great expectations. Azure DevOps.

# **Data Engineer Consultant @ United Nations**

#### 2020-present

- Data Engineering Consultant for UN-ECLAC
  - Data Standards. SDMX. Data standard mapping. Mapping, transformation, availability.
  - Data Exploration, analytics, and endpoints Integration with macroeconomic data and process Automation. ETLs. Data flows.
  - Data pipeline refactoring.
  - o Scripting, T-SQL. MSSQL Stored Procedures.
  - Data use cases. Data Q&A. Cleansing & Matching. Profiling.
  - Webservices, Backend API implementations.
  - Website: https://statistics.cepal.org/portal/cepalstat/index.html?lang=en

### **Technologies**

T-SQL, Store Procedures SQL. Python, Great expectations. Gitlab Gitflow.

## Co-founder, GIS Data Engineer & Geodeveloper & @ Sistemas Mapache

#### 2010-Present

- Analysis and expert advice on Geographic Information Systems & data.
- PostgreSQL, PostGIS GIS data flows.
- Metabase. Airflow orchestration.
- Geodeveloper & Geospatial solutions
- Linux-based server web services (mapserver, geoserver) and web gis scripting (leaflet, openlayers)
- Website: https://www.smapache.com.ar

# **Technologies**

Python, PostgreSQL, PostGIS, Geojson, SQL, Bash, Javascript, Bash, PHP, geo web services, and web gis libraries. QGIS.

#### **Awards**

 Winners of 2016 CAF's data structuring and visualizing challenge: <a href="https://www.caf.com/en/currently/news/2016/08/sistemas-mapache-win-the-data-structuring-and-visualizing-challenge/">https://www.caf.com/en/currently/news/2016/08/sistemas-mapache-win-the-data-structuring-and-visualizing-challenge/</a>

# Data Analytics and Backend scripting @ The National Institute of Statistics and Censuses (INDEC)

#### 01/02/2018-2020

- Development and analysis of GIS module for Agriculture National Census.
- Data exploration, analysis, and geographical tools developments.
- Topology algorithm scripting for census routing optimization (PGRouting).
- Website: https://www.indec.gob.ar/

### **Technologies**

Python, PostgreSQL, PostGIS, Geojson, SQL, Bash, Javascript, Bash, PHP, geo web services, and web gis libraries. QGIS.

## Fintech Spatial Data Analyst @ SIISA

#### 2016-2019

- Geospatial solutions for feature engineering optimizations of financial scorings.
- Analysis and expert advice on Geographic Information Systems & geodata.
- GeoDBA. SQL Server & Stored Procedures.
- Geocoding, scraping, analysis, advice, and data normalization.
- Data enrichment & prospecting.
- Python scripting & scraping.
- Website: https://www.siisa.com.ar

## **Technologies**

Microsoft stack SQL, T-SQL, Store Procedures, Python, IBM SPSS Modeller.

## GIS Data Consultant @ Ministry of Energy and Mining

#### 2011-2016

- CKAN implementation of Open Data Portal Development
- Implementation of Ministry of Energy and Mining geoportal and geodatabase.
- Expert advice on data exploration, analysis, and geographic information systems.
- Digital Document Management system implementation (OCR based data tool).
- Trained external consultants in information technology issues and implementation of GIS web systems (geonode) within an international program between Bolivia FO-AR and Argentina.
- GeoDBA. PostgreSQL / PostGIS.
- Website: <u>sig.se.gob.ar</u>, <u>datos.minem.gob.ar</u> (open data portal)

# **Technologies**

Python, PostgreSQL, PostGIS, Bash, Javascript, Bash, PHP, geo web services, and web gis libraries. QGIS.

#### **Publications**

2016, Building global dataset of Urban Areas with OpenStreetMap data. ISBN 978-987-4101-04-4.

# GIS Developer @ GCBA City of Buenos Aires

#### 2008-2011

- Project Leader of the project "Smart Digital City Plots" (Parcela Digital Inteligente). Objective: unifying all existing alphanumeric and multimedia information, both current and historical, of all available elements generated by the Autonomous City of Buenos Aires for better strategic planning of the sector.
- DBA Oracle 11g, PostgreSQL + PostGIS.

# **Technologies**

Python, Oracle, PostgreSQL, Geojson, SQL, PostGIS, Bash, Javascript, Bash, PHP, geo web services, and web gis libraries. QGIS. Wordpress.

# Information Manager & Analyst @ Humanitarian Data Team IFRC International Red Cross

#### 2016

- HDX (Humanitarian Data Exchange) Standard.
- Data Analyst for early response to emergencies.
- Collection, cleaning, modeling, transformation, and publication of geographic / non-geographic information for humanitarian purposes.

#### **Technologies**

SQL, Python, Geojson, SQL (PostGIS), Open Source Datasets (OSM,+)

## Education

#### **Master's Degree**

 Master's Degree in Data Exploitation and Knowledge Management (Univ. Austral).

(ends December 2022).

Thesis in progress:: "Detection of red flags in Buenos Aires Compras (BAC) data system using machine learning techniques and Open Contracting Data Standard (OCDS) for open contracting".

## **University studies**

Sound & Image Design (Universidad de Buenos Aires, Argentina)

#### In-class courses

Red Hat System Administration II, IT College (2014)

Secure Programming, INAP (2013)

Functional analyst, UAI (2013)

Linux Administrator, Linux College (2010)

Advanced Security Linux, Linux College (2010)

Oracle PL / SQL 11g, EducaciónIT (2010)

Oracle Database Administrator 11g, EducationIT (2010)

#### Online courses

Web Application Technologies and Django (University of Michigan)

Data Collection and Processing with Python (University of Michigan)

ETL in Python (Datacamp)

Google Cloud Big Data and Machine Learning Fundamentals

Microsoft Azure Data Fundamentals - Spring Challenge (12 modules)

Spatial Analysis and Satellite Imagery in a GIS (University Toronto)

R Programming (Johns Hopkins University)

English for software developers (Polo TIC Misiones)

Apache Spark SQL for Data Analysts, Databricks

Geospatial Information Technology (GIT) in Fragile Contexts (United Nations)

Introduction to the open government approach, Federal Open Gov, Argentina

Compilation Basics for Macroeconomic Statistics CBMSx, IMF/FMI

Data Engineer with Python Track, DataCamp

Data Analyst with SQL Server Track, DataCamp

Apache Spark SQL for Data Analysts, Databricks

Data Analytics Fundamentals, AWS

AWS Database Offerings, AWS

Building Data Engineering pipelines in Python, DataCamp

Data Processing in Shell, Datacamp

Introduction to PySpark, Datacamp

Recolección y exploración de datos, Tecnológico de Monterrey

Software Engineering for Data Scientists in Python, Datacamp

Airflow in Python, Datacamp

Data Analytics for Lean Six Sigma, University of Amsterdam.

Python programming, Universidad Austral

Microsoft: DAT201x Querying Data with Transact-SQL

Microsoft: DAT216x Delivering a Relational Data Warehouse

Microsoft: DAT217x Implementing ETL with SQL Server Integration Services

Data Analyst with SQL Server, Code Academy

GIS Data Acquisition and Map Design (University of Toronto, Coursera 2020)

API RESTful con Laravel (Udemy, 2019)

OOP Object Oriented Programming In PHP 7 (Udemy, 2019)

Python for Data Science (UC San Diego, Edx 2018)

GIS Data Formats, Design and Quality, University of California, Davis (2016)

Geospatial and Environmental Analysis, University of California, Davis 2016)

Imagery, Automation, and Applications, University of California, Davis (2016)

Machine Learning, Stanford University (2016)

Introduction to Computational Thinking and Data Science, MIT (2015)

Metadata: Organizing and Discovering Information, Univ. North Carolina (2014)

Computer Science and Programming Using Python, MIT (2014)

GST-101: Geospatial Technology using Quantum GIS, FOSS4G (2014)

GST 102: Spatial Analysis Using Quantum GIS, FOSS4G (2014)

Webinar: Geoscientific Data Management, Geosoft (2014)

Geospatial Intelligence & the Geospatial Revolution (2014)

From GPS and Google Maps to Spatial Computing, University of Minnesota (2014)

Maps and the Geospatial Revolution, Pennsylvania State University (2014)

LFS101: Introduction to Linux, Linux Foundation (2014)

Programming with Python, University of Michigan (2014)

# Charitable causes and organizations member

**@Humanitarian OpenStreetMap**: Remote Crowdmapping to help with global catastrophes (Participated projects: Nepal, Mapazonia, Ecuador)

www.hotosm.org

@Geoinquietos Argentina: a community that shares innovative interests, experiences and ideas in the field of geomatics, open source and GIS.

geoinquietos.org/grupos/argentina

**@Mapschool**. A community project to provide clear and simple concepts of cartography, gis, maps, and web mapping aimed at schools and children. mapschool.io

Languages

Spanish: native. English: advanced.

Open to learning more languages