



# Gonzalo Varela

Developer Sr.

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Location: Buenos Aires, Argentina (GMT -3)

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## Summary

I am a software developer with experience in SQL Postgres + PostGIS databases and Python + Django. Specialized in GIS software with a working experience implementing and maintaining Geoserver and Geonode platforms, I'm looking for a workplace with strong focus on quality to acquire more experience in Design Patterns and programming best practices.

I had also worked extensively with Leafletjs, MapboxGL and VectorTile server and ESRI technologies such as ArcGIS PRO, GeoEvent, AGOL, Data Pipelines, Notebooks and Dashboards  
I am open to work as part of a team or individually.

## Key Technologies

Python + Django | Jupyter Notebook | PostgreSQL | Geoserver | Geonetwork | GeoEvent | AGOL Data Pipelines | GeoJSON | PHP | QGIS | ArcGIS Pro | ArcGIS Python API | ArcGIS Experience Builder | ArcGIS Web Appbuilder

## Languages

**English – Intermediate**

**Spanish - Native**

## Habilities and Technologies

**Documentation**

**PostgreSQL, SQL/PL-SQL**

**PostGIS**

**Python + Django**

**Geoserver, Geonetwork, Geonode, QGIS, GeoEvent, AGOL Data Pipelines, ArcGIS Pro**

**PHP**

**Apache Airflow**

**Bash, CSS, JavaScript, jQuery, HTML 5, LeafLetJS**  
**Resolución de problemas**  
**Linux, Windows, MySQL, Programming, Code Igniter (framework mvc para PHP)**  
**Development, Web Services**  
**AGOL Data Pipelines**  
**GeoJSON**  
**PHP**  
**QGIS**  
**ArcGIS Pro**  
**ArcGIS Python API**  
**ArcGIS Experience Builder**  
**ArcGIS Web Appbuilder**  
**Problem solving**  
**SCRUM**  
**Product Owner**

## Education / Courses

**UNTREF University ( 2019 – Present day)**  
Bachelor in GIS (Geographic Information System)

**FIUBA graduates center (2018)**

Python for developers

## FOSS4G-AR

Geonetwork Introduction (2018)  
Advanced Geonetwork – Code Customization (2019)  
Advanced Geoserver – Cluster and Load Balancing over Docker (2019)  
PGRouting (2018)

## Educación IT

Java Essentials (2010)  
PHP Web Services (2011)

**High School - ET N° 28 REPUBLICA FRANCESAS**  
Technical degree in electronics 1994 - 1999

## Work Experience

### **Sr Developer Aeroterra**

November 2022 – Present

Currently leading development for multiple high-impact GIS-Integration projects utilizing **Python, React, and TypeScript**, while leveraging advanced low-code and data streaming tools (GeoEvent, AGOL DataPipelines) for real-time processing.

These are some remarkable projects which involved Data Pipeline optimization, Apache Kafka-like tools or XLSForm templates:

1. Real-Time Electric Network Dashboard: Engineered a comprehensive monitoring system leveraging GeoEvent to integrate SCADA data, providing live visibility and control over electric network operations.
2. Linear-to-Spatial Progress Tracker: Developed a GIS-integrated web app that bridges standard

platform data with custom visualizations. Using Python-based ingestion scripts and optimized PostgreSQL views, the solution automates the conversion of linear measures into spatial coordinates for real-time monitoring of 7 concurrent construction phases.

3. Disaster Response Coordination System: Designed and deployed a real-time dashboard for emergency management, utilizing Survey123 (XLSForm) for rapid mobile data collection and centralized decision-making.

## **Sr. Developer - SpaceSUR**

March 2022 – May 2022

I took this position as Sr. developer for a 3 months trial period, eventually they realized they needed someone with more experience in design patterns and decided not to renew my contract.

In this brief period I had the opportunity to:

1. Analyze customer databases to be redesign into a GeoPortal
2. Assist geographer personal in finding geodata issues and solve them using SQL
3. Create a django view to allow GeoNode layer uploads from external applications (using binary files request instead of multipart/form-data requests)
4. Solve GeoNode async request related issues while saving maps containing remote WMS services

## **Technical Lead / Developer Sr/ SIG Consultant at SSPPBE - GCBA (Buenos Aires City government)**

April 2020 - December 2021

I started as a Developer Ssr. and began to assume a Sr. role slowly, getting involved in models design, code revision and helping pushing forward halted processes in pair coding sessions.

Some highlight projects are:

1. Back-end design (API-Taxi powered by Django + Postgres + PostGIS)  
<https://ruteo.usig.buenosaires.gob.ar/pie/viaroute?loc=-34.4873995,-58.684607&loc=-34.5009963,-58.6760981&instructions=true>
2. Debug and Expand functionalities API Cadastral Data (Python + Django)  
<https://epok.buenosaires.gob.ar/catastro/>
3. Functionality updates API 3D-City (Python + Django) <https://ciudad3d.buenosaires.gob.ar>
4. Back-end update (Geographic Database Engine powered by Django + Postgres + PostGIS)  
[https://epok.buenosaires.gob.ar/pub/mapa/mapaescolar/establecimientos\\_educativos/](https://epok.buenosaires.gob.ar/pub/mapa/mapaescolar/establecimientos_educativos/)
5. Implementation and Maintenance Vector Tile Server (Python + sqlite)
6. Documentation and Tutorial reviews
7. Docker images creation from scratch or update existing ones
8. File uploads and metadata updates automation to Open Data Portal (python + CKAN)
9. Geospatial Data analysis (PostGIS + QGIS, adress normalization, 3D-City data visualization)
10. Process normalization (Map of crime) <https://mapa.seguridadciudad.gob.ar/>

## **Developer / Freelance Consultant**

March 2015 - March 2020

I worked independently for a few years in challenging and innovating projects.

Some remarkable companies and/or institutions I had the opportunity to work include:

- National Institute of Geography (Branch of Defense department)
- ScanTerra S.A. (Geographic data analysis for Agriculture)

Some highlight projects I had participated on:

- 1 Map servers: Installation, monitoring and maintenance of map servers and georeferenced data under **Geoserver** technology. Implementation in diverse ecosystems such as **Docker**, JAVA Servlet under **Apache Tomcat** or compiled **Jetty** environment.
- 2 Interactive Maps: Interactive map development for elementary and high school students usage. It allows students to perform measures, draw lines and write notations on blank maps to be saved as PDF files or printed on paper. <http://mapasescolares.ign.gob.ar/>
- 3 Geographic Data Publication: Geonode Installation, migration and maintenance. <http://qhapaqnan.ign.gob.ar/>
- 4 Rancher (Docker orchestration) The challenge was to discover every micro-service of a complete and vast stack to achieve 3 separate tasks:
  - Identify both github and dockerhub repositories for each stack component.
  - Identify every technology integrated in the system and define which technical profiles where required for the next development stages.
  - Write and expand documentation for every micro-service and pipeline.
- 5 Processes analysis: Deployment process analysis to increase stability and reliability, accommodate backup instances, rollbacks and other desired improvements.
- 6 Web Page data capture: Data capture automation using Selenium + Python technologies, it extracts data which only can be retrieved by navigating a web page. Tasks include
  - user authentication
  - menu navigation,
  - file downloads and migrate data from downloaded files into a database.
- 7 Geoserver / Geonode instalation and fine tuning for heavy load.
  - <http://wms.ign.gob.ar>
  - <http://qhapaqnan.ign.gob.ar>
- 8 Joomla! / Drupal components adaptation.

## **Devops at TSOFT (for TELECOM S.A.)**

October 2014 - February 2015 (5 months)

- 1 SeleniumHQ/ Javascript / Bash / SOAPUI developer with assertions-driven regression detection
- 2 Jenkins administration and unit test configuration
- 3 Gantt design and monitoring for QA environments assembly
- 4 Coordination between various Software Factories, deployment areas and QA teams.
- 5 Linux user creation, disk monitoring, bash scripting
- 6 Cross applications messaging coordination
- 7 Infrastructure delivery coordination

## **Developer Jr at 4IT ( for Banking client)**

December 2012 - August 2014 (21 Months)

1. ETLs scripting
2. MySQL administration
3. MySQL stored procedures and data modeling
4. Banking data analysis, product results vs global results

5. Web application design, html + jQuery + bootstrap

### **Developer at TECENG GAMING**

December 2011 - November 2012 (12 Months)

1. Data migration between SQL databases
2. Database administration, data validation
3. User Manual and Administrator Manual manufacture
4. Data analysis using PostgreSQL

### **Developer Jr and Help Desk at TECENG GAMING**

March 2010 - December 2011 (22 Months)

Bash Scripting  
User support  
PostgreSQL Database administration  
Data analysis  
User support

### **Processes analysis at Arwen**

March 2003 - January 2010 (83 Months)

Processes automation  
Visual Basic developer  
MS-Excel support

### **Support at Tecnet S.A.**

March 2001 - February 2003 (22 Months)

MS-Windows Help Desk  
Lotus Notes Help Desk

### **Help Desk at Wober y Asoc.**

March 1999 - April 2001 (26 Months)

1. Help Desk
2. Computer and Printers repair
3. Network wires installation

## **Gonzalo Varela**

Gis Developer | Technical Lead

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## 5 personas han recomendado a Gonzalo

"I highly recommend Gonzalo Varela as a capable professional both in technical and interpersonal terms. He integrates very quickly into teams, possesses a natural ability for fast learning, and is a dedicated, high-quality worker."

— **Alfredo Cabezas**, *Technician at Tecnet, worked directly with Gonzalo at Tecnet S.A.*

"Gonzalo is an outstanding professional and a person of great integrity. I have had the privilege of working with him on various projects, where he consistently demonstrated exceptional interpersonal skills and an innate ability to adapt to diverse teams. Additionally, he possesses a remarkable capacity for quick learning."

— **Bruno J. Bosco** *IT Issuing Processing Manager, supervised Gonzalo at 4IT.*

"It is a pleasure to work with Gonzalo. He has led the technical coordination of the Data Engineering development team with great proficiency, demonstrating not only a deep understanding of the technologies and solutions he develops and maintains but also a remarkable human approach to team management. Our team has faced complex implementation processes, incident resolution, and solution development amidst leadership transitions and high-pressure environments; throughout this, Gonzalo has consistently provided clarity, efficiency, and excellent coordination among collaborators. I have full confidence in his technical judgment, and I truly enjoy working with him on a daily basis."

— **Rocío Marcalain**, *General Director of Data Architecture, supervised Gonzalo at SSPPBE - GCBA.*

"During my first role in software development, Gonzalo supervised my professional growth. I am certain that without his guidance, my work would not have reached the same level of quality. He contributed ideas while always respecting my own, showed immense patience, and was always willing to dedicate his time to support me. He helped me not only sharpen my programming skills but also significantly improved how I present and pitch my ideas to the rest of the team."

— **Imanol Lew**, *Full Stack Developer, worked directly with Gonzalo at SSPPBE - GCBA*

"I had the opportunity to work with Gonzalo, and I can confidently state that he is an exceptional professional. He is characterized by his commitment and dedication, always willing to give his best to collaborate on every project. His solid experience in GIS development is complemented by a great ability to efficiently solve technical challenges. Furthermore, I would like to highlight his affable nature and excellent willingness to interact with both team members and users. This skill allows him to thrive seamlessly in collaborative environments, fostering a positive and productive work atmosphere. Without a doubt, Gonzalo is a valuable asset to any organization."

— **Javier Distefano**, *CTO at Aeroterra | Systems Engineer | MBA, supervised Gonzalo at Aeroterra*