

# Arturo J. Ossorio Arana

## Data Scientist | Ecohydrologist

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### ABOUT ME

I am a hands-on professional who enjoys turning data into solutions. I take ownership of projects, driving them forward, and quickly learn new skills when needed.

My interest lies in the connection between data science and environmental concerns like freshwater ecosystems, soil moisture dynamics, sustainable drainage, and agriculture.

### EDUCATION

**Universidad Nacional de la Plata**  
**M.Sc. in Ecohydrology**  
La Plata, Argentina  
2020 (Thesis pending)

**Universidad de Buenos Aires**  
**B.Eng. + M.Eng, Civil Engineering**  
Buenos Aires, Argentina  
2018

### SKILLS & TOOLS

**Technical and Data**  
*Python (pandas, numpy, scipy, scikit-learn, polars, xarray, dask), Data Visualization (Plotly, Matplotlib, Seaborn), Virtual Environment, Version Control (Git, GitHub, GitLab), Data Cleaning, SQL, PostgreSQL, Linear Algebra, Calculus, Probability, Statistics*

**GIS and Ecohydrology**  
*QGIS, Vector and raster data, DEM, Watershed delineation, Water cycle, Water balance, Hydrograms, Eutrophication, Lake management*

**Soft skills**  
*Problem-solving, Project Ownership, Work Autonomy, Communication, Collaboration*

**Languages**  
*Spanish (Native), English (Fluent)*

### PERSONAL INTERESTS

*Fly Fishing, Amateur Radio, Reading, Cooking, Traditional Folk Music, Guitar, Soccer, Skiing*

### EXPERIENCE

#### HK Analytics (Remote, US Based)

##### Python Programmer | Data Scientist (Jun-2022 - Aug-2023)

- Collaborated remotely with a two-member team to develop Python code for solar plant data analysis, contributing to feature enhancement, debugging, and documentation.
- Ensured high-quality codebase by adhering to documentation standards and producing clear, concise, and organized technical documentation.
- Contributed effectively in technical video meetings, presenting findings and solutions to obstacles, communicating complex concepts to both technical and non-technical stakeholders.
- Took initiative in structuring tasks and addressing challenges independently, with a high degree of autonomy and effective decision-making.
- Contract ended due to exhaustion of company funds designated for non-founder contributors.

#### EcoAqua (Buenos Aires, Argentina)

##### Limnologist | Data Analyst (Mar-2021 - Present)

- Consistently delivered limnological reports of client's water bodies, preventively identifying negative trends in key water quality parameters and evaluating possible solutions.
- Revamped reporting process, decreasing total delivery time by 45% while decreasing errors.
- Performed analysis on water data, identifying regional and seasonal differences in key variables as well as potential correlation between lake, watershed and limnological parameters.

##### Biology Project Manager (Feb-2020 - Feb-2021)

- Diagnosed and treated for harmful algal blooms, submersed, floating and shoreline weeds and any other unwanted vegetation and water quality issues.
- Implemented a new budgeting process based on limnological and operational factors, increasing revenue by 27% and standardizing the procedure for future employees.
- Developed new workflow for managing and solving customer's complaints, improving client retention rate by 30%, ensuring response of every request on time.

##### Aquatic Specialist (Jun-2017 - Jan-2020)

- Managed five 2-person teams, guaranteeing all services were completed on schedule, creating and executing monthly and weekly schedules, and taking care of urgent tasks that came up.
- Maintained 500+ acres of customer's lakes, providing superior quality service, fulfilling of all customer needs leading to 42% complaint reduction.
- Formulated and standardized maintenance routine for vehicles, machinery and tools, decreasing workflow interruptions due to equipment break down by 60%.

### PROJECTS

#### Analysis of Trophic State of Argentinian Lakes and Reservoirs

- Analyzed trophic states in Argentine lakes and reservoirs using data analysis and visualizations, revealing eutrophication patterns with Carlson's Trophic State Index (TSI).

#### EDA in Amateur Radio Licenses Numbers Across Argentina

- Independently analyzed amateur radio license distribution in Argentina, utilizing data visualizations to reveal regional trends and potential contributing variables.

#### Test Elaboration on Pandas to Evaluate Candidates for Different Roles

- Created 50 scenario-based questions for testing the situational judgement of candidates.