Arturo J. Ossorio Arana
Data Scientist

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ABOUT ME

I love building things, tinkering with new tools, and learning new concepts. I find the process of dissecting a problem, analyzing the different components and evaluate possible solutions (with its trade-offs) extremely stimulating, especially when tackling complex, cross-functional problems with tangible outcomes.

Looking for new challenges within the data spectrum. Particularly interested in the intersection between data science and ecohydrology or freshwater issues.

EDUCATION

MSc., Ecohydrology (Part-time)
Universidad Nacional de la Plata (UNLP)
Thesis pending
Expected Graduation Date: 2023

BEng. + MEng, Civil Engineer
Universidad de Buenos Aires (UBA)
Graduated 2018

SKILLS

Python
Pandas, scikit-learn, GeoPandas, NumPy, Request, Matplotlib, Seaborn

Data-related tools
Git, SQL, PostgreSQL

GIS and Remote Sensing
QGIS, Vector & raster data, DEM, Watershed delineation

Maths
Probability, Statistics, Combinatorics, Linear Algebra, Calculus

Ecohydrology & Freshwater Ecosystems
Water balance, Hydrograms, Eutrophication, Nutrient budgeting, Lake management

OTHER ACTIVITIES

Soccer, Fly fishing, Hiking, Skiing, Camping, Reading, Cooking, Playing guitar, Amateur radio

EXPERIENCE

Limnologist | Data Analyst @ EcoAqua
Mar. 2021 - Present | Argentina (Remote)
• 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 @ EcoAqua
Feb. 2020 - Feb. 2021 | Buenos Aires, Argentina
• Diagnosed and treated for algae, submersed, floating and shoreline weeds and any other unwanted vegetation and water quality issues.
• Implemented new budgeting process based on limnological and operational factors, increasing revenue by 27%.
• Developed new workflow for solving customer's complaints, improving client retention rate by 30%, ensuring response of every request on time.

Aquatic Specialist @ EcoAqua
Jun. 2017 - Jan. 2020 | Buenos Aires, Argentina
• Managed five 2-people teams guaranteeing all services were completed on schedule. Devised and executed monthly and weekly schedules.
• Maintained 500+ acres of customer's lakes, providing superior quality service, fullfilling of all customer needs leading to 42% complaint reduction.
• Formulated and standardized maintenance routine for vehicles, machinery and tools, decreasing workflow interruptions by 60%.

Graduate Teaching Assistant (Applied Hydraulics) @ UBA
Aug. 2017 - Present | Buenos Aires, Argentina
• Assigned to 100+ students, answering queries and grading assignments. Rated as "Very helpful" or "Excellent" by 96% of students.
• Aided professors in examinations and course administration. Gave several practical lectures, developing new material for grasping difficult concepts.
• Syllabus: Pressurized pipe flow, pump selection, water hammer, open channel flow, weir and culvert design.

PROJECTS/PUBLICATIONS

Test elaboration on Pandas to evaluate candidates for different roles
• Created 50 scenario-based questions on Pandas, designed to test the situational judgement of the candidates. Reviewed and corrected 50+ previous questions made by another expert.

EDA on Argentine lakes and reservoirs dataset
• Obtained Carlson's trophic state index (TSI) for waterbodies in dataset of Argentine lakes and reservoirs. Analyzed differences between natural and man-made waterbodies and the role of latitude and depth in eutrophication.

EDA on Cal Newport's Podcast
• Using Spotify API, obtained data from podcast and analyzed many variables, such as terms occurence, episode length and weekday of release.