

# ALEJANDRO VARGAS

## DATA SCIENCE

### CONTACT

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- [github.com/sagravela](https://github.com/sagravela)
- [kaggle.com/sagravela](https://kaggle.com/sagravela)

### SKILLS

- Python, R, Tableau, MS Excel
- Pandas, Polars, Numpy, PySpark
- PyTorch, Tensorflow, scikit-learn
- Seaborn, Plotly, Shiny, Streamlit
- Azure ML, AWS, Apache Airflow
- SQL, PostgresSQL
- HTML/CSS
- Selenium, Scrapy

### INTERNSHIPS

- IAESTE Practical Training**  
2022/08 - 2022/10  
UNICAMP
- Noise Properties in the GPS/GNSS Time Series of San Juan Permanent Stations**  
2022 - 2023  
CICITCA Scholar | UNSJ
- Geophysical Characterization of the Crust in the Region of Major Unconventional Hydrocarbon Exploration in Argentina**  
2020 - 2021  
CIN Scholar | UNSJ



Data enthusiast passionate about leveraging data to drive innovative and impactful business solutions. Adept in data collection, preparation, analysis, visualization, and modeling using leading Python and R libraries. Quick learner with a strong aptitude for problem-solving, eager to contribute to a dynamic and collaborative environment.



### PROJECTS/EXPERIENCE

#### E-commerce Recommendation Engine

*Python · TensorFlow · pandas · numpy · seaborn · plotly · Optuna*

This project showcases the end-to-end implementation of a deep learning-based recommendation system built on the top of TensorFlow Recommenders. It leverages user interaction data from an e-commerce platform to model user preferences, achieving an average accuracy of 55% in predicting the correct product within the top 50 recommendations.

- Demo: [huggingface.co/spaces/sagravela/ecommerce-recommendation-system](https://huggingface.co/spaces/sagravela/ecommerce-recommendation-system)
- Repository: [github.com/sagravela/recommendation\\_system](https://github.com/sagravela/recommendation_system)

#### Sales Time Series Forecasting

*R · tidyverse · fable · tsibble · purrr · Shiny*

Forecasted over 3,500 time series for various products across multiple stores, applying advanced forecasting models such as ARIMA and STL+ETS. Forecasted data was integrated into an interactive dashboard, enabling real-time visualization and data-driven decision-making for enhanced inventory and sales strategy.

- Demo: [sagravela.shinyapps.io/salesforecastr](https://sagravela.shinyapps.io/salesforecastr)
- Repository: [github.com/sagravela/salesforecastr](https://github.com/sagravela/salesforecastr)

#### AltScore Kaggle Competition

*Polars · XGBoost · LightGBM · CatBoost · SHAP*

Data collection from different sources, data cleaning, feature engineering and aggregations of provided and external data. Training and evaluation of ensemble tree-based model with posterior inspection and explanation. Reached top 5 in the public leaderboard.

- Competition: [kaggle.com/competitions/alt-score-data-science-competition](https://kaggle.com/competitions/alt-score-data-science-competition)
- Repository: [github.com/sagravela/altscore-kaggle-competition](https://github.com/sagravela/altscore-kaggle-competition)



### EDUCATION

#### Bachelor's degree of Geophysics

2016 - 2023

FCEFN | UNSJ

**Overall Score:** 8.68 / 10.0

#### Relevant courses:

- Linear Algebra
- Statistics
- Calculus 1-3
- Programming
- GIS tools and Geospatial Data Analysis