

# ADRIÁN AUGUSTO FERRER ORGAZ

DATA SCIENTIST AND MATHEMATICS ENGINEER

## PROFILE

Enthusiastic Data Scientist eager to contribute to team success through hard work, attention to detail and excellent organizational and planning skills. Clear understanding of Modeling in Machine Learning. Motivated to learn, grow and excel in AI and Investigation.

## SKILLS

- Data Analysis and Statistics.
- Machine Learning.
- Data visualization.
- Programming.
- Python
- Web / web app development

### Programming Languages:

Python, R, Matlab, C++, Wolfram Mathematica, Dart, C#, HTML5, CSS3.

### Frameworks/Systems:

Anaconda, Keras, scikit-Learn, NumPy, Streamlit, VisualStudio, MS Office.

## CERTIFICATIONS

- IELTS Band 8 CEFR C1 Level Certification (2022).
- Statistics with R Specialization, Duke University (2021–present).
- Deep Learning Specialization, DeepLearning.AI (2020–present).
- Machine Learning Scientist with Python, Datacamp (2020).
- Machine Learning Fundamentals with Python, Datacamp (2020).

## LANGUAGES

- Spanish (native).
- English (advanced C1).

## OTHER SOFTWARE

- Adobe Photoshop (intermediate).
- DaVinci Resolve (beginner).
- Adobe Premiere (beginner).
- Unity (intermediate).

## CONTACT



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## EDUCATION

### Instituto Tecnológico Y de Estudios Superiores de Monterrey

BE Data Science and Mathematics.

- August 2019 – 2023 (present).
- Beca al Talento Académico (2019).

### Swiss Federal Institute of Technology Lausanne

Exchange Semester in Mathematics and Computer Science Courses.

- Fall Semester 2022– 2023 (present)

## EXPERIENCE

### “Digital Signature (DS) scheme implementation as an administration app (2022)”

Project developed under the supervision of non-lucrative Mexican organization Teletón. A multidisciplinary project with the objective of making cryptographic technology accessible for non technical users. Main designer of code, app functionality and user cycle. Developed the main logic and Python code blocks to be used in the final application, assisted in UI and app design. The final product consists of the app implementation of the DS algorithm and a promotion [dummy web page](#).

### “E-commerce vehicle capacity vehicle routing problem (CVRP) optimization” (2021)

Project developed under the supervision of Mexican nationwide department store Coppel. An alternate solution methodology is proposed for NP-hard CVRP using clustering, local optimization algorithms and regular travelling salesman problem.

### “3rd place in an NDS Cognitive Labs sponsored machine learning team competition, HackMx” (2021)

Fraud detection simulation in an e-commerce web application. Led modeling and machine learning tasks. Designed the benchmark and supervision of model training. Use of anomaly detection specific and traditional classification algorithms.

### “Semi-supervised anomaly detection based on autoencoders” (2020–2021)

Supervision and evaluation of various trained models, development of code, Neural Network architectures, and code execution on several environments. Development under supervision of Ph.D. Miguel Ángel Medina Pérez.

### “Red Neuronal Multicapa para predecir la defunción en casos de COVID-19.” (2020–2021)

Presented in 51 Congreso de Investigación y Desarrollo, Tecnológico de Monterrey. Prediction of death probability for a patient based on certain comorbidities and other factors. Conceptualized as an auxiliary tool to aid in prioritizing medical attention. Led code architecture and web app development. A [streamlit web app](#) is presented with the results of the model iterations.

## COMPLEMENTARY SKILLS

- Advanced correlation and multivariate linear regression analysis.
- Control theory, LTI system analysis.
- Time-Embedding topological data analysis.
- Ruin theory, Crammer–Lundberg model analysis.
- Beginner web, and web app development.

## ONLINE PORTFOLIO



<https://adrianfo-16.github.io/Portfolio/>