ADRIÁN AUGUSTO FERRER ORGAZ

DATA SCIENTIST AND MATHEMATICS ENGINEER

PROFILE

Data Scientist and Machine Learning engineer with international academic experience and keen interest in Artificial Intelligence and Data Mining. Looking forward to growing in multidisciplinary teams through high attention to detail and commitment.

SKILLS

Specific Skills:
- Machine Learning
- Data Analysis and Statistics
- Autodidact / Self – Taught
- Problem Solving
- Flexibility and Adaptability

Programming Languages:
- Experienced:
  - Python, R, Matlab, Wolfram Mathematica
- Beginner/ Intermediate:
  - HTML5, CSS3, C#, Dart, C++

Frameworks/Systems:
Scikit–Learn, Keras, PyTorch, Streamlit, Dash, seaborn, matplotlib, MS Office.

Complementary Skills:
- Advanced linear regression analysis
- Observational studies analysis
- Control theory, LTI system analysis
- Time series topological data analysis
- Ruin theory simple model analysis
- Beginner web development

Other Software:
- Adobe Photoshop (intermediate)
- DaVinci Resolve (beginner)
- Adobe Premiere (beginner)
- Unity (beginner)

CERTIFICATIONS

- IELTS Band 8 CEFR C1 Level Certification (2022)
- Machine Learning Scientist with Python, Datacamp (2020)
- Machine Learning Fundamentals with Python, Datacamp (2020)

LANGUAGES

- Spanish (native)
- English (advanced C1)
- French (beginner A1)

CONTACT

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Github:
https://github.com/AdrianFO–16

ONLINE PORTFOLIO

https://adrianfo–16.github.io/Portfolio/

EDUCATION

Instituto Tecnológico y de Estudios Superiores de Monterrey, México
BS Data Science and Mathematics Engineering.
- August 2019 – 2023 (present).
- Beca al Talento Académico (Academic Talent Scholarship) (2019).

École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
Exchange Semester in Data Science and Computer Science Master program courses.
- Fall Semester 2022– 2023
- Highlighted courses taken:
  - Applied Data Analysis (CS–401)
  - Machine Learning (CS–433)
  - Applied Machine Learning (MICRO–455)

ACADEMIC EXPERIENCE

"Hacking the Oscars data story" (2022)
"Hacking the Oscars" is a project developed as part of the Applied Data Analysis EPFL course. Elaborate data wrangling performed on CMU movie summary corpus dataset along with IMDb datasets to understand movie success through data–driven approach. Statistical differences between highest rated and lower rated movies are explored. Use of unsupervised learning techniques such as Latent Dirichlet Allocation for movie summary plots for feature engineering and interpretation. Participated actively in code and analysis design, developed the presentation web page (data story).

"Digital Signature (DS) scheme implementation application" (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 prototype 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.

EXTRACURRICULAR ACTIVITIES

"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.

"3rd place in an NDS Cognitive Labs sponsored machine learning team competition, HackMx " (2021)
Fraud detection simulation in an e–commerce web application. Leaded modeling and machine learning tasks. Designed the benchmark and supervision of model training. Use of anomaly detection specific and traditional classification algorithms.

"Multilayer Neural Network for death probability prediction in COVID–19 patients" (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. Leaded code architecture and web app development. A streamlit web app is presented with the results of the model iterations.