Enrique David Guzman Ramirez

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Professional Interests

My interests are centered around Deep Learning, Natural Language Processing and lately Trustworthy Machine Learning. I have experience working as a Data Scientist where I gained hands-on experience with ML projects for various use cases.

Education

MSc in Applied Computing

University of Toronto, Department of Computer Science *Sep 2022 – Dec 2023 (expected)*

- **Courses (ongoing):** Computational Linguistics, Trustworthy Machine Learning, Communication for Computer Scientists, Neural Networks and Deep Learning (winter), Foundations of Computer Vision (winter).

BSc in Data Science *9.60/10 GPA*

National Autonomous University of Mexico, Research Institute in Applied Mathematics and Systems *August 2019 - June 2021*

- Graduated with high academic performance.

BSc in Physics *9.54/10 GPA*

National Autonomous University of Mexico, Faculty of Science *August 2015 - June 2020*

- Graduated with high academic performance.

Work Experience

Grupo Salinas *Mexico City*

Data Scientist *November 2021 - July 2022*

- Developed and improved several recommendation systems used in the E-commerce area with scikit-learn and PyTorch in order to increase customer engagement.
- Deployed and monitored ML models as APIs for various use cases with AWS SageMaker.
- Assisted in the migration of different on-premise databases, like MySQL to AWS Redshift, which reduced operational and management costs.

National Autonomous University of Mexico *Mexico City*

Teaching assistant *January 2019 - June 2019*

- TA at the Relativity class for physicists for the winter semester at the Faculty of Science. My job was to design the assignments, grade them and support the students in doubts that could arise.

Projects

Adaptive reversible lanes

National Autonomous University of Mexico *March 2021 - September 2021*

- Modified a traffic simulator in CoffeeScript in order to have reversible lanes and several types of vehicles in the simulator.
- Kept track of important metrics, like the flow and density of the traffic, in the simulator in order to measure the impact of different strategies to reduce traffic.

Dynamics of black holes and fundamental scalar fields

National Autonomous University of Mexico *June 2019 - February 2020*

- Solved numerically some of the analytical solutions of Einstein field equations in Julia in order to visualize the shadow of a black hole.
- Created a survey on the study of black holes shadows for undergraduate students.

Technical skills

Programming Languages	Python, Julia, R, Fortran, SQL.
Cloud services	AWS.
Machine and Deep Learning	Scikit-learn, PyTorch, Keras, TensorFlow, PySpark MLlib.
Databases	PostgreSQL, Redshift, MongoDB, Redis.
Miscellaneous	Linux, Git, LaTeX, Scrum.

Awards

2022 **Vector Scholarship in Artificial Intelligence Recipient 2022-2023.**

2019 **Support Program for Research and Technological Innovation Projects (PAPIIT, Mexico).**