

Enrique David Guzmán Ramírez

Curriculum Vitae

Mexico City

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in Enrique David Guzmán Ramírez

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Age: 23 years (April 20, 1997)



Education

2015 - 2020 **B.S. Degree in Physics**, *Facultad de Ciencias, UNAM*.

Currently I have finished all my courses but I have some procedures left to get my degree. Average grade: 9.54. Credits: 100.00%.

High level mathematical knowledge and mathematical skills. Abstract thinking and problem solving. Data analysis, numerical analysis and computer simulations of various phenomena.

2019 - June 2021 **B.S. Degree in Data Science**, *Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM*.

Currently in the 7th semester of eight. Average grade: 9.44. Credits: 77.00%.

Processing of large amounts of data. Ability to predict and make decisions based on data. Presentation, data visualization and communication of results.

Languages

Spanish First language.

English Professional competence.

- CAE, Cambridge C1 Level Qualification.
- TOEFL iBT: Reading: 29/30, Listening: 30/30, Speaking: 24/30, Writing: 28/30. Score: 111/120.

French Basic professional competence.

Experience

Academic

Semester 2019-2 **Teacher assistant**, *Facultad de Ciencias, UNAM*.

I was teacher assistant in the *Relativity* class, my job was to design the assignments, reinforce the lessons given in class, give students useful tools and support them in doubts that could arise.

Prizes and scholarships

2019 **Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica PAPIIT** (Support Program for Research and Technological Innovation Projects).

Project: *Dynamics of black holes and fundamental scalar fields*.

Attendance to congresses, workshops, summer schools and hackathons

October 15-19, 2018 Workshop on New Physics Searches with Leptons. *Mexico City*.

November 7-9, 2018 Optics, Photonics and Upcoming Methods and Applications *Mexico City*.

December 12-14, 2018 Scientific Summers Abroad Contest-Experimental version, *Mexico City*.

September 6-8, 2019 Hackathon BBVA 2019. *Mexico City*.

October 21-25, 2019 Artificial Intelligence for Science, Industry and Society. *Mexico City*.

November 4-8, 2019	Third Congress on Data and Information Management. <i>Mexico City.</i>
January 23-25, 2020	Datathon Data Science UNAM. <i>Mexico City.</i>
February 17-18, 2020	An Approach to Artificial Intelligence. <i>Secretary of Foreign Relations, Mexico City.</i>
February 20, 2020	Competitive Programming Contest WalkSAT 2020. <i>Mexico City.</i>
September 2-4, 2020	NLP Summer School.
September 11-13, 2020	UNAM-AWS Hackathon 2020.
October 7-8, 2020	School of Deep Learning applied to Language Technologies.
October 12-17, 2020	Mexican International Conference on Artificial Intelligence.

Abilities

Physics knowledge	Classical Mechanics, Quantum Mechanics, Statistical Physics, Relativity, Numerical Relativity, Computational Physics.
Mathematics knowledge	Calculus, Mathematical Analysis, Linear Algebra, Differential Equations, Probability, Statistics.
Computing knowledge	Analysis of Algorithms, Numerical Analysis, Computational Geometry, Databases, Concurrent Computing, Big Data, Data Mining, Machine Learning, Pattern Recognition, Natural Language Processing.
Strengths	Ability to solve problems, autodidact, fast learning, teamwork.

Computational skills

Programming Languages	Python, Julia, R, Scala, SQL, C, C++, Fortran, Javascript/HTML/CSS.	Operating systems	Unix/Linux (Ubuntu, Lubuntu, Fedora, Debian) and Windows suites.
Office Suites	Microsoft Office and Libre-Office.	Text and presentation tools	L ^A T _E X, Beamer.
Machine Learning tools	Python: Scikit-learn, PyCaret, PySpark MLlib.	Deep Learning Tools	Python: Keras, TensorFlow, PyTorch.
PLN tools	Python: NLTK, spaCy, Hugging Face.	Numerical and symbolic computing	Mathematica.
Web Development	Javascript/HTML/CSS. Python: Django, Streamlit.	Databases	PostgreSQL, Apache Cassandra, Redis, MongoDB, Neo4j.
Data visualization	Python: Matplotlib, Seaborn, HoloViews, Bokeh, Folium. R: ggplot2.		

Interests

- Data Science.
- Artificial Intelligence.
- Machine Learning.
- Deep learning.
- Computational Linguistics and Natural Language Processing.

References

Dr. Saúl Noé Ramos Sánchez

Full-time Researcher A, *Instituto de Física, UNAM*.

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Dr. Gibrán Pineda Fuentes

Research Associate C, *Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM*.

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Dra. María del Pilar Ángeles

Full-time Professor B and coordinator of the Data Science degree, *Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, UNAM*.

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