

# Marco Israel Rodríguez Cornejo

📍 Ixtapaluca, México    ✉ marco\_israel@ciencias.unam.mx    ☎ 52 55 8150 14 58    🌐 marcoisrael.github.io  
in marco-israel-rodriguez-cornejo-b6949a276    🐙 marcoisrael

## About

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I am a physicist focused on data science, numerical simulations, and machine learning. During my training, I conducted simulations of complex physical phenomena using various programming languages and tools such as Python and Fortran at the Institute of Nuclear Sciences' high-performance data center.

## Education

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<b>Facultad de Ciencias UNAM</b> <i>Bachelor's degree in physics</i>	<i>2017 - 2022</i>
<b>Instituto de Ciencias Nucleares UNAM</b> <i>Intern</i>	<i>2022 - 2023</i>
<b>Tecnológico Nacional de México</b> <i>Data science certificate</i>	<i>2023 - 2024</i>

## Experience

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<b>Instituto de Ciencias Nucleares UNAM</b> <a href="#">Enfriamientos rápidos del modelo 2d O(3)</a> 	<i>March 2023 - July 2025</i>
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My thesis project is a study of rapid cooling in a physical model called 2d O(3). The research required the application of Monte Carlo methods, Markov chains, and advanced statistics, as well as the development of an efficient program capable of performing the simulations, guided by Dr. Wolfgang Peter Bietenholz.

<b>Latin American Journal of Science Education</b> <a href="#">Amplitudes grandes de un péndulo simple amortiguado</a> 	<i>August 2017</i>
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I collaborated on an article on numerical simulations in a physical system for the Latin American Journal of Science Education with the advice of Dr. Alejandro González y Hernández. I conducted a controlled experiment in the laboratory and wrote a program to solve the problem using the second-order Euler method.

## Aptitudes

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**Programming languages:** Python, Java, Fortran, R

**Tools:** SQL, Numpy, Matplotlib, Pandas, Tensorflow, Scikit-learn

**Languages:** Spanish, English