

# José Carlos Reyes Velázquez

📍 CDMX, Mexico

✉️ jotxe@ciencias.unam.mx

📱 +52 5580841216

## ABOUT ME

---

"I am a very curious person who loves discovering the complexity of the world, I'm happy doing research on complex systems, geospatial data analysis and mathematical biology; I also love studying the dynamics of geopolitical networks, especially the Chinese phenomenon. Even so, my motivation is to contribute to changing the social reality of Mexico."

## EDUCATION

---

**Bachelor Studies in Applied Mathematics (in progress)**

2025

Universidad Nacional Autónoma de México, CU

## RESEARCH PROJECTS

---

### AI-Based Artifact Detection in EEG Signals

- ✓ Building an AI to detect artifacts in EEG signals.
- ✓ Training a LSTM neural network
- ✓ Using the Kuramoto model looking for synchronization throughout the brain.

### Hackathon: Hack the goal

- ✓ Solve the mobility problem during the FIFA World Cup 2026 in Mexico
- ✓ Design a methodology and an algorithm to solve this problem in general.
- ✓ Adapt this solution to the 3 mexican headquarters.
- ✓ Design a business plan.
- ✓ Discuss this project with experts on the subject and expose it.

## PRESENTATIONS

---

- ✓ AI-Based Artifact Detection in EEG Signals, C3 UNAM, CDMX (10 June 2025)
- ✓ ¿What is MUN and what is it for?, Practical Workshop IMEF, CDMX (16 July 2025)
- ✓ ¿How to be a delegate and not to die trying?, Practical Workshop IMEF, CDMX (04 July 2025)

## COMPUTATIONAL

---

- Python:
  - ✓ AI: Keras, TensorFlow, Optuna.
  - ✓ Visualization: Seaborn, Matplotlib.
  - ✓ Numerical Methods: Scipy(odeint), Numpy.
  - ✓ Data: Pandas, Open Street Maps.
- Others:
  - ✓ R
  - ✓ Postgresql
  - ✓ Linux
  - ✓ Latex

## **EXPERIENCE**

---

**Research Director**

Feb 2024 – Dec 2024

**IMEFU MDL UNAM FC, CDMX**

- ✓ Lead a +100 members group of students to introduce them into finance.
- ✓ Arrange and participate in debates on financial issues.
- ✓ Write articles for a nacional gazette.
- ✓ Organize and direct presentations.
- ✓ Teamwork to collaborate with another universities throughout the country.