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## EDUCATION

### MAJOR IN PHYSICS

Faculty of Science, UNAM : 2022–Present  
Mexico City, Mexico

### HIGH SCHOOL

Campus Toluca, UNITEC: 2019–2021  
Toluca, State of Mexico, Mexico

## ABILITIES

### Programming Languages

- PYTHON: Qiskit, TensorFlow, PyTorch, Pandas
- MATLAB
- MATHEMATICA
- ARDUINOIDE, NEXTION

### Languages

- English (C2)
- Spanish (native)
- Japanese (N2)

### Soft skills

- Collaborative problem solving in research teams at undergraduate and graduate levels
- Public speaking, conversational skills
- Diligence, initiative

## REFERENCES

### Dr. Pedro A. Quinto Su

Applied Optics Laboratory, Institute of Nuclear Science

Mail: pedro.quinto@nucleares.unam.mx

### Dra. Edna M. Hernández González

Laser Optics Workshop, Physics Department,  
Faculty of Science

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# Emilio Moreno Ledesma

## PHYSICS MAJOR

## SUMMARY

Junior Physics student at UNAM's Faculty of Science. Self-taught in Quantum Computing, Machine Learning and Data Analysis, mainly using Python. Strong communications and problem solving abilities tested as an intern in the Applied Optics Laboratory and a volunteer in the Laser Optics Workshop and Electricity Workshop at UNAM. Actively raising the standard in student-lead scientific research.

## EXPERIENCE

### Applied Optics Laboratory, December, 2024 – Present Institute of Nuclear Science (ICN)

#### Intern

Design and construction of optical tweezers arrangements

### Laser Optics Workshop March, 2024 – Present Volunteer

Design and construction of a DIY spin coater, analysis of thin films with reflectometry and analysis of graphene Raman spectra

### LXVII National Physics Congress October, 2024 Participant

Presentation of a DIY spin coater project

### Electricity Workshop February, 2024 – August, 2024 Volunteer

Design and analysis of the following experiments

- Magnetic field intensity measurements through electromotive force curves
- Construction and characterization of DIY capacitors

### Quantum Antarctic Startup Weekend December, 2024 First place winner

### JLPT N2 Certification November, 2024

### ENALLT – Japanese August, 2023 – November, 2023 Conclusion of the sixth level course (equivalent to N3)

### WaniKani 2019 Level 60 conclusion