

CARLOS OSWALDO VELASCO MORENO

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EDUCATION

Instituto Tecnológico y de Estudios Superiores de Monterrey

Monterrey, México

BS. Mechatronics Engineering

Aug. 2024 – Present (4th Semester)

HONORS & CERTIFICATIONS

- **Mexican National Record:** Achieved the national record for Energy Efficiency in vehicle competitions.
- **Shell Eco-Marathon:** Two-time participant and certification holder for international sustainable engineering competitions.
- **Deep Learning Certificate (NVIDIA):** Understanding neural networks and training AI models.

TECHNICAL SKILLS

- **Programming & AI:** Python (NumPy, Pandas, Seaborn, Matplotlib, Scikit-learn), C++, Deep Learning algorithms.
- **Engineering Software:** SolidWorks, Rockwell Arena (Process Simulation), EasyEDA (PCB Design)
- **Manufacturing:** Mill and Lathe operation, soldering, electronic instrumentation, basic factory tools.
- **Languages:** Spanish (Native), English (Full Professional Proficiency).

PROJECTS

Medical Clinic Operations Simulation | Rockwell Arena

- Modeled and simulated three simultaneous clinic operations to identify and mitigate bottlenecks.
- Analyzed stochastic data to optimize patient flow and operational efficiency.

Shell Eco-Marathon

- Collaborated with a high-performance team to meet international safety and technical regulations.
- Created a full-functioning and customized web page, using an existing template as base.
- Developed and optimized a high-efficiency vehicle, achieving the Mexican National Record 2 times in a row for energy performance.

Scientific Computing & Matrix Calculator | Python

- Developed a tool for complex matrix operations and statistical analysis using the Python scientific stack.
- Applied data visualization libraries to interpret engineering datasets.