

David Torres Everest

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EDUCATION

Instituto Tecnológico y de Estudios Superiores de Monterrey

Bachelor of Sciences in Mechatronics Engineering

Concentration in Cyber-Physical Systems

Cumulative GPA: 3.7/4.0; Academic Talent Scholarship

Relevant Coursework: Design and development of robots, Industrial and Manufacturing Systems Automation, Analog Circuits, Computer Vision, Industrial Networks Design.

Monterrey, Nuevo León

August 2021 - June 2025

WORK EXPERIENCE

Schneider Electric

Electronic Components Intern

Apodaca, Nuevo León

June 2024 – Present

- Selection of electronic components, validating their compliance with corporate standards and functionality within their application for Class 2 and 3 products, updating information on Product Data Management platform Windchill.
- Collaborated directly with major manufacturers on component selection process; streamlined data collection methods led to improved accuracy in selecting compliant products suitable for intended applications.
- Recollection of data for validation of international environmental and safety standards such as RoHS, REACH, JEDEC (JESD-201) and UL.
- Performed laboratory experiments with passive filters, utilizing both SMD and THT technologies, following a 5S methodology to ensure quality results after performing tests.

UNIVERSITY PROJECTS

ABB | AUTOMATED WELDING CELL

May 2024

- Design of an automated welding station using SolidWorks and an ABB industrial robot, ensuring compliance with standards like NOM-004-STPS-1999 and ANSI RIA R15.06-1999.
- Validated the design with ABB RobotStudio and integrated industrial vision systems using Cognex Insight Explorer.

OMRON AUTOMATION - SMART FACTORY

October 2024

- Collaborated with Omron Automation to program a robotic manipulator on an AGV for micro-logistics, automating material handling between warehouses and conveyor belts.
- Developed Pick-and-Place operations using the robot's camera for image processing, QR scanning, color detection, and interfacing via Modbus TCP/IP

ACTIVITIES

ECOSHELL RACING

Electronics Team Leader

Monterrey, Nuevo León

January 2023 – Present

- Led a 10-person team to develop an electric powertrain for a single-seater competing at the Shell Eco-marathon 2024.
- Design of a motor controller for a 500W PMSM with an STM32 microcontroller using Altium Designer for the PCB layout and schematic design. Plus, a telemetry system to capture and monitor data in real-time, integrating sensors via communication interfaces with UART, SPI, and I2C.

VANTTEC

UUV Electronics Member

Monterrey, Nuevo León

August 2024– Present

- Development of firmware to collect data from a hydrophon, using FreeRTOS to ensure functionality within the system

ADDITIONAL

Technical Skills: Advanced in MATLAB, SolidWorks; Proficient in Python, C, C++, LTSpice, Altium Designer

Languages: Fluent in Spanish, English; Basic Proficiency in French, German

Certifications & Training: EDUCATIONAL ROBOTICS TRAINING – CORE (Universal Robots), SOLIDWORKS CAD Design Associate (CSWA), SOLIDWORKS CAD Design Professional (CSWP), Process Simulate Standalone Associate, ABB Education Package - Cobot for Material Handling Skills Pack Course.