

Ricardo Islas Guerra

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SUMMARY:

Electronics Engineer with hands-on experience in cybersecurity applications, SCADA systems, and automation in fast-paced environments. Proficient in Python, TypeScript, and Linux scripting, with a track record of optimizing system performance and ensuring compliance with industry standards.

Nationality: *Spanish* (EU Citizen) and *Mexican* (TN Visa Candidate for US Market)

EXPERIENCE:

TESLA, Cybersecurity Applications Engineer Internship Palo Alto, USA. **Sept 2023-Aug 2024**

- Developed a secure data diode solution for Battery Energy Storage Systems (BESS), ensuring compliance with NIS2 and NEVI guidelines, enabling the secure handling of Controlled Unclassified Information (CUI).
- Automated SCADA deployment processes (AVEVA historian setup, DNP3/MODBUS integration), reducing deployment time by 50%, enhancing operational security and resilience.
- Executed Controller Hardware-in-the-Loop (CHIL) security testing and end-to-end validation of proprietary software, strengthening ICS resilience to cyber threats.
- Authored comprehensive compliance documentation for NEVI guidelines (US) and NIS2 standards (EU), mapping country-specific adoption requirements to support Tesla Energy's expansion into European markets.

SKILLS: *Linux, Networking, SCADA, Python, Golang, TypeScript, AVEVA, Documentation, Automation*

QUALCOMM, Silicon Test Engineer Internship San Diego, USA. **May 2023-Aug 2023**

- Designed and implemented a Pass/Fail Log Clustering System to identify systematic issues in premium-tier mobile ASICs using the Advantest 93000 Smartest platform.
- Analyzed structural test data to optimize processes, achieving a significant reduction in test time and improving test quality and correlation with functional tests.
- Developed a Python library to integrate Static Timing Analysis (STA) into Physical Testing and Evaluation (PTE), enhancing verification accuracy and efficiency.
- Designed and implemented test solutions for One-Time Programmable (OTP) memory on secure processors.

SKILLS: *Circuit Analysis, Python, JavaScript, Data Analysis, Signal Processing, Automated Testing*

FIRST ROBOTICS, FTC and FRC Teams Chihuahua, MX. **Aug 2018-May 2020**

- Co-founded the first community robotics team in Chihuahua, securing sponsorships totaling 20,000 USD to support STEM education for underserved communities.
- Led the design and development of four functional robots for forklift operations, incorporating encoders for telemetry, autonomous features, and remote control via LAN networks.
- Directed technical workshops and outreach programs, impacting over 100 students and mentoring 10 aspiring engineers for the next-generation robotics team.

SKILLS: *SolidWorks, Robotics, Control Systems, Public Speaking, Team Leadership*

AWARDS: *Inspire award, Connect Award, Finalist Alliance, and twice Captain of Winning Alliance*

EDUCATION:

Tecnológico de Monterrey

Bachelor of Science in Electronics Engineering - GPA 3.7/4.0

Aug 2020-Dec 2024

Monterrey, Mexico

Roppers Academy, Computing Fundamentals

Jan 2025-Present

Harvard University, CS50: Introduction to Computer Science

Jan 2023-May 2023

Languages: *English* (Fluent), *Spanish* (native), *French* (Limited Working Proficiency)