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Eduardo Rodríguez

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Education

Monterrey, México **Tecnológico de Monterrey (ITESM)** **Fall 2016 - December 2020**

- B.S.E. in Digital Systems and Robotics Engineering, December 2020. GPA: 3.7.
- Undergraduate Coursework: Comp. Architecture; Emb. Systems; Digital Systems; Multiprocessors; Comp. Interfaces; Applied Robotics; Applied Electronics; Operating Systems; Advanced Mathematics;

Employment

Software Engineer II **John Deere** **June 2022 – Present**

- Architected and implemented automated licensing system that eliminated manual processing, saving 4,000+ work hours annually across global engineering teams
- Led development of cost-optimization initiative for interface protocols, achieving 94% cost reduction while maintaining system robustness and reliability
- Designed cross-language API framework enabling Python integration with core C++ diagnostics tools, expanding tool accessibility while maintaining performance
- Mentored 4 new engineers in complex diagnostic systems architecture, leading to successful integration and reduced onboarding time

Software Engineer I **John Deere** **May 2021 – June 2022**

- Architected and implemented critical Ethernet protocol infrastructure, establishing new diagnostic communication capabilities adopted across development teams
- Developed and maintained critical communication drivers for industry-standard diagnostic tool used by a wide scope of engineers globally
- Led optimization initiatives for internal development frameworks, significantly improving development efficiency across multiple teams

Project Manager, Intern **Ternium** **January 2019 – May 2019**

- Courses: Intro. To Microcontrollers, Embedded Systems, IT Security, Networking, Administration and Evaluation of Engineering Projects.
- Led an initiative that managed the development of a smart helmet system for high-risk industrial environments. Successfully delivered milestones within deadline and budget constrains.

Technical Experience

Key Projects

- **Enterprise Communication Driver/Protocol Suite** (2022–Present). Led development of cost-effective driver and protocol implementations, resulting in significant cost savings while maintaining industrial requirements. C++, Driver/Protocol Design, Multi-threading
- **Ethernet Diagnostic System** (2021–2022). Spearheaded implementation of Ethernet-based diagnostic protocol, enabling real-time vehicle communications and expanding system capabilities. C++, Network Protocols
- **Cross-Platform Diagnostic Framework** (2022–Present). Architected Python/C++ integration layer enabling cross-language functionality for enterprise diagnostic tools. Technologies: C++, Python, API Design

Languages, Technologies and Recognition

- **Programming:** C++ (Advanced), Python, C, C#, Rust, SQL
- **Expertise:** Communication Protocols, Multi-threaded Systems, API Design, System Architecture, Testing
- **Tools & Methods:** Visual Studio, VS Code, Git/GitHub, Scrum, Agile
- **Languages:** English (Full Professional Proficiency - C2), Spanish (Native)
- **Awards:** Most Valuable Engineer (2022, 2024); Performance Excellence Award (2023); Technical Excellence Badges