Leonardo Cervantes

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Education

Monterrey Institute of Technology
B.S. in Computer Science and Technology *3.7/4.0 GPA*

- **Relevant Coursework:** Data structures and algorithms, Software Development, Computational Methods and Paradigms

Skills

Programming: Python, TypeScript, JavaScript, C/C++, SQL, R, HTML, CSS
Software: Git, Docker, PostgreSQL, MongoDB, Firebase, React, Next.js, Node.js, Express, Django, Flask, AWS

Experience

MXREP (Novus Funded) Aug 2024 – Present
Software Engineering Intern

- Contributed in the developed of a gamified industrial engineering simulator using **React, Node.js, Express, and MongoDB** for **500+ students globally**
- Delivered project **2 months ahead of schedule** through agile development and effective team coordination
- Led code reviews and implemented CI/CD practices that improved team development velocity by 30%
- Co-authored academic papers exploring gamification's impact in higher education

Freelance January 2024 – Present
Full Stack Developer

- Developed **10+ production web applications** for local businesses, increasing client leads by up to **200%**
- Collaborated with business owners on product requirements, UI/UX design, and deployment strategies
- Implemented responsive designs and modern development practices including version control and CI/CD

Via Diseño February 2025 – June 2025
Software Development Intern

- Developed a university enrollment platform using **Next.js and PostgreSQL** reducing administrative time by **20x**
- Implemented test-driven development and scalable backend architecture deployed on Heroku
- Designed data visualization dashboards and delivered comprehensive documentation for long-term maintainability

Intel Apr 2023 – Sep 2023
Software Development Intern

- Led **10+ IoT projects** from ideation to deployment; **won 1st and 2nd place** in innovation competition
- Modernized unused 3D printer with custom **Marlin firmware**, enabling prototyping with a tight budget
- Conducted thesis research on legacy firmware refurbishment and hardware accessibility.

Projects

Web Browsing MCP Server | *Javascript, Node.js, npm*

- Published npm package for enabling AI to browse the web with safety measures and structured data extraction

Scratch Space | *TypeScript, Node.js, VScode API*

- Shipped VS Code extension for creating code snippets and notes without cluttering workspace

Pipe Leak Detection App | *Python, Flask, TensorFlow, Computer Vision*

- Developed computer vision model achieving **85% accuracy** in detecting industrial pipe leaks from image data
- Built complete ML pipeline including data preprocessing, model training, and real-time inference capabilities
- Developed Flask web interface with WebSocket integration for real-time model deployment on a remote server

Genomic Data Analysis | *R, Bioinformatics*

- Analyzed large-scale genomic datasets using R and specialized bioinformatics libraries (ape, adegenet)
- Identified DNA sequence variations and created interactive visualizations for biological pattern recognition