

Alfredo Puentes Vargas

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EDUCATION

Instituto Tecnológico de la Laguna

B.Sc. in Computer Systems Engineering

Torreón, Coah.

Aug. 2022 – Dec. 2026

Centro de Bachillerato Tecnológico, Industrial y de Servicios No. 4

Technical High School, specialization in Programming

Lerdo, Dgo.

Aug. 2019 – Jul. 2022

PROJECTS

NEWS | *React, TypeScript, Next.js, Node.js, Express, MongoDB, JavaScript*

Jan. 2026

- Designed and developed an individual full-stack web application for real-time news aggregation using external APIs.
- Integrated Gemini API for automated content rewriting and summarization.
- Implemented cryptocurrency market tracking using external data sources.
- Developed an automated email newsletter subscription system delivering daily curated news to registered users.
- Designed backend scheduling and notification services for content distribution.
- Presented for evaluation at a corporate hackathon, competing for a professional residency opportunity.
- Presented and defended the project before a panel of five technical evaluators via video conference.

ChambApp | *Android, Kotlin, Java, Firebase, Gradle, Google Play Services*

Sep. 2025

- Developed a mobile application connecting clients with local service providers during HackaTecNM 2025 (Regional Stage).
- Implemented multi-role authentication for clients and workers.
- Designed real-time chat, job request, and rating systems.
- Integrated geolocation services and media upload features.
- Developed under a 36-hour continuous hackathon challenge focused on economic and social impact.
- Presented before three expert evaluators, earning qualification to the national stage.

Reserva tu Cancha | *MERN Stack, JWT, Oracle Cloud Infrastructure*

Dec. 2025

- Co-developed a modular and scalable full-stack reservation system in a three-member team.
- Designed and implemented a custom REST API with secure authentication and authorization.
- Enabled availability consultation, booking management, and reservation history.
- Integrated simulated payment processing and multi-venue support.
- Deployed the system on Oracle Cloud Infrastructure (OCI).
- Presented as final engineering course project and awarded a perfect score (100/100) after technical evaluation.

ADDITIONAL EXPERIENCE

- **HackaTecNM 2025.** Advanced through local, regional, and national stages, qualifying among top teams nationwide. Developed technical solutions under time constraints and presented projects to expert evaluators.
- **HackMTY 2025.** Designed and presented a functional solution to the *GateGroup* challenge at Latin America's largest hackathon, strengthening skills in problem-solving, teamwork, and rapid prototyping.
- **ICPC, Gran Premio de México.** Ranked 160th nationwide after advancing through three qualification stages and solving nine competitive programming problems, demonstrating strong algorithmic and analytical skills.
- **Volunteer Programming Instructor.** Delivered courses in *Fundamentals of Programming* and *Object-Oriented Programming* to approximately 45 students, contributing to improved academic performance and foundational programming skills.
- **Programming Competitions.** Participated in *DataWeek 2025* and *Coding Cup TecNM 2024*, strengthening competitive programming abilities in data structures, algorithms, and time-efficient coding.

TECHNICAL SKILLS

Languages: Java, C/C++, C#, SQL, JavaScript, HTML/CSS, PHP, Kotlin, Python, Bash, Assembly

Frameworks: React, NodeJS, ExpressJS, Django, Qt

Development Tools: Git, VS Code, Visual Studio, Jupyter, NetBeans, Android Studio, Figma, Postman