

Francisco José Díaz Villarreal

Software Engineer | Full Stack Developer | Spec Driven Development | Project Lead | Data & Game Specialist
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Software Engineer, Spec Driven and Full Stack Developer with PhD in Applied Sciences and solid experience in the design and development of **scalable web applications, RESTful APIs** and systems based on data science and video games (**chess-based systems**). Specialized in **Spec Driven and Full Stack Development**, system integration and application of good software engineering practices. Experience working with multiple languages, frameworks, applying **Github** and modern software architecture. Profile with strong analytical skills, technical leadership and experience guiding teams in development environments with a focus on real products.

➤ PROFESSIONAL EXPERIENCE

- ✓ **Full Stack Developer & Software Engineering Instructor**
Universidad Tecnológica Nacional (UTN) – CUDI | 2023 – 2025
 - Design and development of Full Stack web applications using **Vue.js, React.js, frontend Bootstrap.js** and **Node.js, C, C++, C#** in backend
 - Building and integrating **RESTful APIs** connected to **SQL and NoSQL databases**
 - Applying workflows with **Github**
 - Database design **implementation**, system integration and application structure
- ✓ **SQL & Database Developer (Academic Projects)**
Universidad Argentina de la Empresa (UADE) | 2021 – 2022
 - Design and optimization of **relational database schemas** to ensure information integrity
 - Developing and optimizing **SQL Server Management Studio** to improve data performance and efficiency
 - Application of **data normalization** principles and good relational modeling practices
- ✓ **Systems & Software Support Engineer**
Servicio Autónomo de Registros y Notarías (SAREN) | 2009 – 2019
 - Support and maintenance of enterprise information systems used in administrative processes
 - Improvement of digital document management processes, contributing to information management
 - Implementation of technical solutions to optimize system reliability and operational continuity
- ✓ **Project Lead – Masterdrez Science Video Game**
Centro Nacional de Desarrollo e Investigación en Tecnología (CENDITEL) | 2008 - 2012
 - Coordinator responsible for and technical management of the development of the video game Masterdrez
 - Concept Author, Software Architecture Definition, Game System Logic and Design
 - Supervision, implementation, technical direction of a team of engineers with master's degree
- ✓ **Software Development Instructor & Technical Mentor**
Universidad Bolivariana de Venezuela (UBV) | 2004 – 2010
 - Training in programming, software engineering and computer architecture
 - Mentoring teams in software projects, game development, promoting development
 - Technical coordination of applied development projects aimed at building solutions
- ✓ **Computer Science & Chess Systems Instructor | Strategic Thinking & Game Logic**
Unidad Educativa “Canónigo Uzcátegui” | 2004 - 2009
 - Taught computer fundamentals, logic, and basic programming structures
 - I applied chess concepts as a model of strategic systems and decision-making
 - Coordinated educational initiatives at the municipal level related to health and cognitive development
 - Led the implementation of the National School Chess Program

- **ACADEMIC BACKGROUND**
 - ✓ **Universidad de los Andes (ULA)**
PhD: Doctor of Applied Science – [Degree](#) – (2024)
 - ✓ **Instituto Superior Politécnico José Antonio Echeverría (ISPJAE)**
M. Sc.: Master's Degree in Applied Computer Science – [Degree](#) – (2010)
 - ✓ **Universidad de Buenos Aires (UBA)**
Spe.: Diploma in Initialization in Programming and Data Analysis (Python) – [Degree](#) – (2025)
 - ✓ **Universidad Valle del Momboy (UVM)**
Eng.: Computer Engineering – [Degree](#) – (2004)
 - ✓ **Centro de Formación Profesional (CFP)** - Vocational Technical Education Level: 3
Spe.: Professional Specialization in Video Game Programming (C#) – [Certificate](#) – (2022)
Spe.: Programmer Track (TypeScript/SQL) – [Certificate](#) – (2021)

- **COMPUTER COURSES**
 - **Adaptive Behavior** – [Certificate](#)
 - **Manual, Agile, and Toolled Testing** – [Certified](#)

- **COMPUTER CERTIFICATIONS**
 - **Database Management** (Python) – [Certificate](#)
 - **Lauching Into Machine Learning** (Python) – [Certificate](#)
 - **Full Stack Python** (HTML, CSS, JavaScript, MySQL, Vue, Bootstrap) – [Certified](#)
 - **Full Stack .NET** (HTML, CSS, JavaScript, MySQL, Bootstrap, Node.js, Handlebars) – [Certified](#)
 - **Full Stack Java** (HTML, CSS, JavaScript, MySQL, Vue, Bootstrap) – [Certified](#)
 - **Spring Specialization** (Java) – [Certificate](#)
 - **React JS** (JavaScript) – [Certificate](#)
 - **Salesforce Platform** (Apex) – [Certified](#)
 - **Unity 2D** (C#) – [Certified](#)
 - **IBM Cloud** (Kubernetes) – [Certified](#)

- **LANGUAGE**
 - **Certificate of Proficiency at Instrumental Level of English:** in Engineering - [Certificate](#)

- **PERSONAL CAPABILITIES**
 - **Employability Skills** – [Certificate](#)
 - **Soft Skills** – [Certificate](#)

- **TECHNICAL SKILLS**
 - **Software Architecture:** MVC, MVVM, Layered Architecture, Microservices, API Integration
 - **Backend Development:** Python, Java (Spring Boot), Node.js, .NET, PHP, RESTful APIs
 - **Frontend Development:** React.js, Vue.js, JavaScript, TypeScript, HTML5, CSS3
 - **Bases de Datos:** MySQL, SQL Server Management Studio, MongoDB, SOQL y SOSL
 - **AI & Data:** Python, TensorFlow, Machine Learning, Data Analysis, OpenCode, Codex
 - **Game Development:** Unity (C#), implementación de lógica de IA en juegos
 - **Cloud & Platforms:** IBM Cloud, Salesforce Platform
 - **Testing:** Fundamentos de Unit Testing
 - **Responsive Design:** Bootstrap.js
 - **DevOps & Tools:** Git, GitHub