

Sergio Andrés Lejarde López

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Education

Universidad Pontificia Bolivariana (UPB)

Bucaramanga, Colombia

B.S. in Systems Engineering, 2026

Relevant Coursework: Software Engineering, Web and Mobile Development, Databases, Distributed Systems, Information Security, Artificial Intelligence Fundamentals, Project Management, UX/UI Design, Operating Systems, Data Structures and Algorithms, Cloud Computing, Additional focus on digital systems and hardware description, including circuit modeling and simulation with Verilog (HDL).

Honors: Active participant in research and innovation projects

Certifications: AWS Academy Graduate – Machine Learning Foundations (Amazon Web Services, Issued Nov 2024), AWS Academy Graduate – Cloud Architecting (Amazon Web Services, Issued Oct 2024).

Colegio Agustiniano Floridablanca

Bucaramanga, Colombia

High School Diploma, 2020

Bilingual education in Spanish and English

Experience

Freelance Programmer

Remote • 2021 – Present

- Designed and developed custom web and mobile solutions for academic and small-business clients.
- Built applications using JavaScript, Python, Flutter, React, AWS Amplify, Firebase, and Render, among others.
- Implemented CI/CD pipelines with GitHub Actions, reducing deployment time by over 40%.
- Delivered transcription automation solutions, enhancing efficiency for academic projects.
- Collaborated with clients using Agile methodologies, GitHub, and Jira for task management.
- Developed internal tools and prototypes using C#, C++, and Go to automate data

processing, file handling, and reporting tasks for academic and small-business clients.

- Used Docker and Git (GitHub) to containerize services, manage versions, and streamline collaboration and deployment workflows.

AI Pilot Assistant – Mindrift (Tendem Project)

Remote • 2026 – Present

- Executed data extraction, verification, and refinement tasks using AI-assisted workflows in a human-in-the-loop environment.
- Performed multi-step validation pipelines combining LLM outputs with external sources to ensure factual accuracy and data integrity.
- Identified and corrected model errors, inconsistencies, and hallucinations through structured QA processes and cross-verification.
- Designed precise prompts and task strategies to guide AI agents toward high-quality, client-ready outputs.
- Applied strict quality standards (LLM QA + Human QA alignment) to deliver approval-ready results under production constraints.
- Documented workflows, verification steps, and issue resolutions to support auditability and reproducibility.

Technical Support Assistant – Electoral Scrutiny System

Bucaramanga, Colombia • 2026

- Provided on-site technical support during electoral scrutiny processes, ensuring system availability and operational continuity under time-critical conditions.
- Diagnosed and resolved hardware, software, and network issues in real time across multiple workstations and data entry points.
- Assisted in troubleshooting data transmission and system synchronization problems to prevent delays in vote reporting.
- Coordinated with technical teams and supervisors to escalate critical incidents and ensure rapid resolution.
- Maintained system stability and minimized downtime in a high-pressure, mission-critical environment.

AI Model Evaluator – Outlier (LATAM Coders)

Remote • 2025 – Present

- Contributed to the evaluation and oversight of advanced language models, analyzing model outputs for quality, coherence, instruction-following, and reasoning.
- Designed high-quality prompts and scenario-based tasks to test model behavior across diverse domains and user interactions.
- Assessed UI-related reasoning, decision-making, and tool-usage behaviors using structured rubrics and qualitative feedback.

- Ensured consistency and reliability in evaluations by applying strict guidelines aligned with modern AI training and RLHF-style workflows.

PawCampus Project – Project Lead

Universidad Pontificia Bolivariana, Bucaramanga, Colombia • 2024 – Present

- Led a social responsibility project integrating technology and community service
- Designed a mobile/web app to monitor and support stray animals on campus
- Coordinated development of smart feeders, solar-powered cameras, and QR identification system
- Engaged university stakeholders to align project with academic and social goals

Distributed Systems Labs (Course Projects)

UPB, Bucaramanga, Colombia • 2024 – 2025

- Implemented client-server applications using Java RMI and Sockets.
- Created multi-threaded Java program converting URLs and documents to PDF with performance benchmarking.
- Developed headless automation with LibreOffice and ChromeDriver for file conversions.
- Analyzed concurrency and scalability, producing detailed academic reports with charts and tables.
- Complemented Java-based solutions with C++ and Go components for performance-sensitive tasks and benchmarking, and designed SQL queries to store and analyze execution metrics.

Web Development Project – “Buena Vida” E-commerce

UPB, Bucaramanga, Colombia • 2024

- Designed and built a full-stack web application for a natural products store using HTML, CSS, JavaScript, Node.js, and SQL (relational database design and querying).
- Applied software design patterns and hexagonal architecture principles for modular and maintainable code.
- Focused on responsive UI, efficient database interaction, and scalability.

Data Analysis Project – “Environmental Phenomena Study”

UPB, Bucaramanga, Colombia • 2024

- Conducted data analysis using Python (Pandas, Matplotlib) and Tableau to identify patterns and correlations in environmental phenomena datasets.
- Calculated averages, trends, and causal relationships to produce visual analytical dashboards and statistical reports.
- Applied data cleaning, transformation, and visualization techniques following best practices in data analytics.

Personal Projects

- Built experimental iOS prototypes using Swift and SwiftUI to explore mobile app architecture, navigation, and integration with REST APIs.

Leadership & Activities

UPB Student Community

Active Member • 2021 – Present

- Participated in academic research groups and social initiatives.
- Volunteered in accessibility analysis projects (temple accessibility, inclusive design).
- Collaborated in interdisciplinary work linking engineering, ethics, and social responsibility.
- Member of the UPB Choir, representing the university at the International Choral Festival of Torrevieja, Spain (2024).

Skills & Interests

Programming & Frameworks:

C#, C++, Go, Java, Python (Pandas, Matplotlib, Scikit-Learn), JavaScript, TypeScript, Swift, Verilog (HDL) Dart, Flutter, React, React Native, Next.js, HTML5, CSS3, Tailwind CSS, Bootstrap.

Cloud & DevOps:

Docker (containerization and image management), AWS, Firebase, Render, CI/CD (GitHub Actions), Linux, Windows & macOS environments, Git-based workflows (GitHub).

Databases & APIs:

SQL (PostgreSQL, MySQL), MongoDB, Supabase, Firebase, PgAdmin, Postman, REST API design.

Software Engineering & Architecture:

Design Patterns, Hexagonal Architecture, Software Design, Agile & Scrum Methodologies, Project Management (Jira, Trello).

Data & AI:

Data Analysis (Python, Excel, Tableau), Machine Learning (model training, Scikit-Learn), Statistics & Visualization.

Security & IT Infrastructure:

Information Security, Ethical Hacking, Cryptography, Legal Informatics, Systems Administration.

UX/UI & Tools:

Figma, Adobe XD, Canva, UX/UI Design, Accessibility, User-Centered Design, LibreOffice Automation, ChromeDriver.

Languages: Spanish (Native), English (B2 – TOEFL Certified), German (A2 – Basic).

Transcription: Audio & text transcription (Spanish/English), experience with Mundo AI (LingoTribe).

Interests: Technology for social good, innovation projects, music production (Ableton Live, MIDI), research, accessibility initiatives, cultural exchange.