

Tatiana Vivas Restrepo

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Professional Profile

Systems Engineering and Data Science student with a hybrid profile focused on developing robust web solutions and data analysis. I have practical experience as a Web Developer and as an academic and administrative monitor, where I have supported quality processes under ABET standards and trained students in programming logic and data structures. I am proficient in technologies such as React, Next.js, Java, and C++ for software development, along with analytics tools such as Python, Spark, R, and Power BI for generating data-driven insights. I am passionate about integrating algorithmic logic and statistical analysis into interactive applications and have a B2 level of English for global environments. I am a proactive person with a strong commitment to continuous learning and a solid technical foundation in distributed architectures and data structures.

Education

Pontifical Xavierian University

Systems Engineering Student. **GPA:** 4.62/5, Data Scientist Student. **GPA:** 4.6/ 5.

Graduation year: 2026

Relevant Coursework: Operating systems, distributed systems, data structures, introduction to artificial intelligence, software architecture, mobile development, web development, large-scale data processing.

Experience

Pontifical Xavierian University

Bogotá

Administrative monitor

2025

- Provided technical and engineering support in the organization and management of academic processes, using advanced Excel tools to optimize the quality and availability of information.
- Collaborated in the coordination and control of the documentation required by ABET accreditors, ensuring compliance with established standards and deadlines.
- Managed the course registration process, developed monitoring reports, and presented improvement proposals to streamline administrative workflows.
- Developed support materials and presentations for internal training for future courses at the institution.

Pontifical Xavierian University

Bogotá

Academic monitor

2024

- Provided support sessions and practical tutorials to students in programming courses, clarifying concepts of logic, data structures, and syntax in languages such as C, C++, and Java.
 - Designed and ran interactive workshops and supplementary teaching materials (exercise guides, solved examples, and quizzes) to reinforce independent learning.
 - Addressed individual and group questions during classes and labs, fostering a collaborative and dynamic environment that encouraged active participation.
 - Monitored students' academic progress, identifying knowledge gaps and proposing personalized resources for their continuous improvement.
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Prana Inc

Bogotá

Front-End Developer & Web Maintenance

2025

- Spearheaded the front-end development of the "[Spiriwors](#)" digital project using Next.js, React, and TypeScript, ensuring a modern, scalable, and high-performance architecture.
 - Architected and engineered reusable UI components with Tailwind CSS, implementing responsive design patterns to guarantee an optimal user experience across mobile, tablet, and desktop devices.
 - Conducted requirement gathering and analysis through stakeholder meetings, translating artistic needs into technical specifications for the digital portfolio's structure.
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Outstanding projects and academic achievements

Software & Web Development

1. **Shiba Vet Clinic- Full Stack Development for web development class** 2025
Full-stack web application for Shiba Vet Clinic. [Link Here.](#)
2. **Drim-Soft - Enterprise Architecture System** 2025
Participated in the design and development of a robust solution based on microservices architecture, applying advanced design patterns to ensure system scalability. [Link Here.](#)
3. **Free Flow Game with auto-solving algorithms** 2025
Developed a frontend app in Angular 16 featuring a number-connection game with auto-solving algorithms and statistical analysis. [Link Here.](#)

Data Science & Analytics

1. **Scrabble Support System for Data Structures class** 2024
Console system that uses advanced data structures. [Link Here.](#)
2. **Observable Spotify Business Model** 2024
Conducted a comprehensive analysis of Spotify's data governance and business model. [Link Here.](#)
3. **Apple historic review in power BI** 2024
Analyze Apple's financial, sales, and customer data to identify trends and strategic opportunities. Development: Built interactive dashboards with Python and Power BI for data-driven insights.
4. **Probabilistic Graphical Models - Bayesian Networks** 2025
Designed and implemented three Bayesian networks in Python to model complex decision-making systems (Music Success Prediction, Academic Approval, and Movie Recommendation).
 - Developed the full pipeline: from defining Directed Acyclic Graphs (DAGs) and Conditional Probability Tables (CPDs) to performing Bayesian Inference using variable elimination.
 - Utilized specialized libraries such as bnlearn and pgmpy for model representation and statistical queries.
5. **Predictive Analysis of Energy Consumption: G7 vs. BRICS** 2025
Developed a Bayesian Structural Time Series (BSTS) model in R to predict and compare energy consumption trends. [Enlace.](#)

Personal Projects

1. **WhatsApp Chat Visualizer** 2026
Developed a TypeScript tool that parses .txt chat exports into interactive visualizations, allowing for behavioral data interpretation. [Link Here.](#)
2. **Rate-by-Recommendation** 2026
Created a JavaScript application focused on movies recommendation systems, integrating rating-based logic to personalize user experiences. [Link Here.](#)

Academic Excellence

2022-2025

- Semiannual recognition of academic perseverance and excellence in both undergraduate programs.

Skills & Interests

Technical:

- **Programming Languages and frameworks:** HTML, CSS, JavaScript, TypeScript, C, C++, Java, Kotlin, Python, R, Next.js, React.
- **Databases:** SQL, MongoDB, Firebase.
- **Technologies & Tools:** Git, GitHub, Docker, Agile methodologies (Scrum), Excel (advanced), Responsive Web Design, Front-end frameworks, Apache Spark.
- **Web Development:** Experience building full-stack applications and optimizing websites for digital presence.

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Languages:

- **Spanish:** Native
- **English:** Professional Working Proficiency (B2)

Interests:

- Arts (drawing, visual design)
- Piano and classical music
- Swimming and wellness activities
- Exploring new technologies and software development trends