Francisco A. Mayorga Cetina

Mathematician | Software Developer | Data Engineer | Teams Leadership

Mathematics professional with over four years of experience in software development using .NET technologies and data analysis tools.

Throughout my career, I have worked on projects that enhanced application performance and quality, while also leading development teams to deliver high-level solutions on time.

Currently seeking opportunities to apply my .NET development skills and contribute to projects that present complex challenges, collaborating with professionals who value technical excellence and problem-solving abilities.

Professional Experience

Development Coordinator

Finanzas y Actuaría (Finac S.A.S), **Bogotá D.C., Colombia**
January 2025 - Current (Previously: September 2023 - July 2024)

- Lead Investments Applications development team, ensuring the efficient allocation of resources and the timely delivery of high-quality solutions, and alignment with projects objectives.
- Coordinate activities to address business requirements and support process improvement initiatives.

Skills & Tools: Visual Studio, Azure DevOps (TFS-Git), .NET Framework, SQL Databases, Redmine, Leadership

Analytics Consultant

CALA Analytics, **Bogotá D.C., Colombia**
July 2024 - December 2024

- Implementation, documentation, and deployment of analytical tools using Python and SQL.
- Optimization of data pipelines and automation of reporting processes.

Skills & Tools: Google Cloud Platform, Python, React, GitLab, Terraform, Confluence

Senior .NET Developer (Developer II)

Sii Group Colombia (Thales Project), Bogotá D.C., Colombia
August 2023 - September 2023

- Analyze, design and implement new features for applications, as well as maintaining or enhancing existing ones, with a focus on optimization, security, and promoting good development practices.

Skills & Tools: Visual Studio, Mercurial (GIT), .NET Framework, WPF, API Integration, Confluence

Development Professional II

Finanzas y Actuaría (Finac S.A.S), **Bogotá D.C., Colombia**
January 2023 - August 2023

- Supervise the activities of team members, monitor progress, and ensure alignment with project goals. Manage resources effectively to optimize delivery timelines.
- Develop software solutions using technologies including WPF, .NET Framework, and SQL, ensuring adherence to business requirements and high-quality standards.

Skills & Tools: Visual Studio, Azure DevOps, .NET Framework (C#, F#, VisualBasic), SQL Databases, Redmine, SonarQube, ADO.NET, WPF, Problem-Solving

Development Analyst

Finanzas y Actuaría (Finac S.A.S), **Bogotá D.C., Colombia**
November 2020 - December 2022

- Design, develop, and maintain applications using WinForms and ASP.NET within the .NET Framework.
- Implement data-driven solutions with different database engines according to requirements.
- Develop APIs and SOAP web services to ensure seamless system integration.

Skills & Tools: Visual Studio, Azure DevOps, .NET Framework (C#, F#, VisualBasic), SQL Databases, Redmine, SonarQube, DevExpress, Problem-Solving

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Education

Bachelor of Mathematics

Sergio Arboleda University, **Bogotá D.C., Colombia**
January 2014 - May 2020

- **Honors Thesis:** Characterizing Dual Graphs Associated with Triangulations of the Caracol Flow Polytope.

Certifications & Courses

- **HTML, JavaScript, and Web Services** – ITTalent, Bogotá, Colombia (August 2022)
- **UI/UX Certification Course** – Programming Hub, Online (November 2021)
- **Python 3 Certification** – Programming Hub, Online (August 2020)
- **Advanced Python Course** – Programming Hub, Online (August 2020)
- **Ethical Hacking with Python** – Udemy, Online (February 2020)

Publications

A Unifying Framework for the v-Tamari Lattice and Principal Order Ideals in Young's Lattice

Published in **Combinatorica Journal (Springer)** – June 2023

On Framed Triangulations of Flow Polytopes, the v-Tamari Lattice, and Young's Lattice

Final version: **April 2021 – Bar-Ilan University, Ramat Gan, Israel**
Published in **Séminaire Lotharingien de Combinatoire, FPSAC 2021 Proceedings**

Activities & Events

- **Regional Programming Marathon (South America North) ICPC** – Contestant, Grancolombian Polytechnic (November 2019)

- **XXII Colombian Congress of Mathematics** – Speaker, University of Cauca, Popayán (June 2019)

    - **Poster:** Flow Polytopes and Triangulations of the Caracol Polytope

- **Cube Challenge Sergista** – Organizer, Sergio Arboleda University (2018 & 2019)

Contact Information

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