



PRACTICE AREAS

- Patents

LANGUAGES

- Portuguese
- English
- French

RAFAEL BARBOSA

Technical Specialist

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BIOGRAPHY

Rafael Ferreira Zuma Barbosa has been a patent assistant at Licks Attorneys' Rio de Janeiro office since 2026. Mr. Barbosa assists the firm in patent-related matters, drawing on a strong technical background in telecommunications, particularly involving 3rd Generation Partnership Project (3GPP) standards and technologies related to 4G/LTE and 5G. His work also includes assisting in matters involving communication protocols and procedures, including aspects of the physical layer, MAC, RLC, and RRC. He also supports his team in project tracking and technical analysis.

Prior to joining Licks Attorneys, Mr. Barbosa developed experience in market and business intelligence, customer experience, and commercial strategy, with a focus on KPI analysis, Python process automation, Power BI dashboard development, and SQL database management. His work focused primarily on mobile (4G, 5G) and fixed network portfolios, contributing to data-driven, decision-making and operational improvements at Nokia Corporation.

In addition, Mr. Barbosa held a research scholarship at the Antennas and Propagation Laboratory of Fluminense Federal University (LaProp – UFF), where he contributed to projects involving channel estimation for 5G Non-Terrestrial Networks (NTN). His work combined analytical expertise with hands-on technical activities, including spectral analysis, real-time signal processing, and the use of tools such as GNU Radio, microcomputer platforms (e.g., Raspberry Pi), and UAV-based systems, including remote access via IP-based connectivity.

Furthermore, Mr. Barbosa has volunteered as a commercial leader in a junior enterprise, where he was responsible for managing sales operations, client relationships, and strategic planning, as well as participating in consulting projects involving network infrastructure, including Wi Fi and CCTV systems, from network assessment to solution design.

PROFESSIONAL HIGHLIGHTS

- Wi Fi Boost Workshop Champion, School of Engineering, Fluminense Federal University – UFF (2024);
- Brazilian Symposium on Computer Networks and Distributed Systems – SBRC (2024);
- High Growth Junior Enterprise, RioJunior Federation – project, contract, and revenue volume (2021);
- Connected Junior Enterprise, RioJunior Federation– multidisciplinary project integration (2021);
- Impactful Junior Enterprise, RioJunior Federation – alignment with the United Nations Sustainable Development Goals (SDGs) and strong Net Promoter Score (NPS) performance (2021).

EDUCATION

- Bachelor's Degree (B.Sc), Telecommunications Engineering, Fluminense Federal University – UFF (2026).

PUBLICATIONS

- Channel Estimation in the FR1 Frequency Band of Fifth-Generation (5G) Non-Terrestrial Networks (NTN). UFF, 2026.