

Carlos Barbosa

Data Scientist

Contact:

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Professional Summary

Data science professional with over a decade of experience across diverse industries, currently serving as an AI Business Analyst focused on automating internal workflows and optimizing operations. Holds a Master's Degree in Data Science (May 2024). Skilled in Python, R, Excel, SQL, Machine Learning, and Business Intelligence tools such as Power BI. Experienced in leveraging AI and data analysis for decision-making, process improvement, and communicating complex insights to both technical and non-technical stakeholders. Known for a client-oriented approach and success in delivering data-driven solutions with measurable impact.

Work History

AI Solutions Architect

Harvard Maintenance, Downtown Miami, FL

October 2025 - Current

- Design and develop AI-driven solutions, applications, and chatbots to transform business operations.
- Define strategic AI vision and roadmap across the organization, aligning technology initiatives with business objectives.
- Architect and lead application modernization initiatives, transitioning legacy systems to scalable, cloud-native architectures.
- Manage database design and cloud infrastructure optimization to support enterprise-scale applications.
- Prototype and develop minimum viable products (MVPs) to evaluate emerging AI technologies, conducting rigorous testing and assessment before enterprise implementation.
- Implement enterprise standards and best practices across applications, ensuring consistency, scalability, and maintainability.

AI Business Analyst

Harvard Maintenance, Downtown Miami, FL

June 2025 - October 2025

- Optimize internal business processes by leveraging Artificial Intelligence to automate workflows.
- Identify manual operations and implement AI solutions to improve efficiency and reduce redundancy.
- Enhance reporting and decision-making through AI-driven insights and predictive modeling.
- Collaborate with cross-functional teams to align automation projects with ROI objectives.
- Drive strategic initiatives that reduce operational costs and increase productivity.

Adjunct Faculty - Artificial Intelligence

Miami Dade College, ENTEC Department, Miami, FL

January 2025 - June 2025

- Teach **Artificial Intelligence Thinking** and **Machine Learning**, introducing students to AI concepts, tools, and applications.
- Develop and deliver engaging lesson plans that include hands-on projects and real-world examples.
- Foster a collaborative learning environment to encourage critical thinking and innovation in AI topics.
- Assess and provide constructive feedback on student work to support their academic and professional growth.
- Mentor undergraduate teams in the **STEM Summer Research Program**, guiding Machine Learning classification projects from data mining through model evaluation and presentation.

Database and Report Analyst

Miami Dade College, Miami, FL

June 2023 - June 2025

- Lead data collection and reporting for the School of Science, ensuring accuracy and timeliness of student data for institutional analysis.
- Analyze and track cohort performance, reporting on key metrics such as admission rates, retention, graduation, and transfer rates, with a focus on year-over-year improvements as per grant requirements.

- Use Power BI for data modeling, DAX calculations, and dashboard visualization to provide insights on cohort analysis and trends in admission, retention, and student success.
- Coordinate the **Summer Bridge Program**: recruit 40+ STEM students each cycle, organize faculty mentors, and track outcomes to improve year-over-year retention.
- Manage grant purchasing life-cycle—create order requisitions, liaise with vendors, and verify delivery of research supplies; serve on departmental technology-procurement committee to evaluate and prioritize capital equipment.
- Track student enrollment by ZIP code and high school, enabling targeted marketing efforts to increase admissions in specific areas.
- Develop dashboards to track student grades and attendance, providing advisors refined insights to enhance student completion and overall success rates.
- Build reports and present grant progress to stakeholders, aligning with institutional and grant objectives.
- Developed Python automation scripts, increasing data processing efficiency.
- Designed and maintained SQL databases, conducted data mining with Power Query, and built robust data models to support decision-making.
- Trained staff on data tools and reporting platforms, enhancing data literacy and fostering a data-driven decision-making culture.

Customer Service Representative (Part Time)

- 8 hrs/week **Adrienne Arsht Center, Miami, Florida** June 2023 - Current
- Responded to customer requests for shows, services, subscriptions, and company information, ensuring a high level of customer satisfaction.
 - Acted as a concierge, assisting customers in selecting the best seats for shows based on preferences.
 - Maintained up-to-date customer records by updating account information accurately.
 - Implemented forward-thinking strategies to maintain customer satisfaction and foster loyalty.

Data Analyst Intern (Part Time)

- 5 hrs/week **Belafonte TACOLCY Center, Miami, FL** March 2023 - December 2024
- Collected and analyzed data from various sources to identify trends and areas for improvement.
 - Evaluated program effectiveness and provided actionable recommendations based on data analysis.
 - Created and maintained a unified database and dashboard for key metrics visualization.
 - Cleaned and organized data to ensure accuracy and consistency in reporting.
 - Developed data reports and visualizations to communicate insights to stakeholders.
 - Provided technical support and training on data management tools and systems.

Captain

- Mr. Chow, Miami Beach, FL** November 2018 - August 2023
- Provided exceptional dining experiences through friendly, responsive service to customers.
 - Led station operations and coordinated team efforts to ensure seamless service.
 - Trained new employees on service standards and operational procedures.
 - Built rapport with customers to encourage repeat visits and promoted loyalty programs.
 - Maintained financial accountability by handling transactions with confidentiality and precision.

Assistant Manager

- Imperial Painting, Deerfield Beach, FL** February 2017 - November 2018
- Completed supply inventory management to maximize top-line sales growth.
 - Managed orders and purchases for ongoing projects, ensuring timely delivery of services.
 - Prospected new clientele through strategic marketing and customer relationship efforts.
 - Directed the operations team, delegating tasks and optimizing work processes.
 - Produced monthly and weekly sales and operational reports for performance tracking.

Analyst Intern

- PD Design & Service, Boca Raton, FL** June 2015 - December 2015
- Conducted field surveys and monitored team activities to enhance service quality.
 - Updated documentation in company databases to ensure accuracy of records.
 - Monitored shipments and deliveries to ensure timely schedule adherence.
 - Created management spreadsheets for customer estimates, improving operational efficiency.
 - Collected, reviewed, and controlled supply costs to optimize budget allocation.

- Managed financial operations for all dealerships within the BVL Group.
- Created management reports for strategic meetings to support executive decision-making.
- Produced and distributed daily, weekly, and monthly sales reports for internal use.
- Managed accounts payable and receivable to ensure financial accuracy and compliance.
- Consolidated selling costs to calculate the real profit margin for each sale.

Education

Master of Science: Data Science University of Texas At Austin - Austin, Texas

August 2021 - May 2024

- GPA: 3.43
- Relevant Coursework: Machine Learning, Predictive Models, Data Exploration, Deep Learning
- Research Project: Mitigating Dataset Artifacts Through Fine Tuning and Ensemble-Based Training

Bachelor of Science: Industrial Engineering FAESA

January 2011 - January 2016

- GPA: 3.2
- Teacher Assistant for Calculus I, Physics I, and Logistics II

Skills

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|------------------------|-------------------|---------------------------|
| • Data Analysis | • Python | • Analytical Skills |
| • Statistical Analysis | • R | • Leadership Skills |
| • Data Visualization | • Power BI | • Policies and Procedures |
| • SQL | • Microsoft Excel | • Project Management |

Languages

- English: Excellent
- Portuguese: Excellent
- Spanish: Average

Additional Courses/Certifications

- DavidsonX - Introduction to SQL Management System
- DavidsonX - Analyzing and Visualizing Data with Power BI
- 365 Careers - Introduction to Business Analytics
- University of Maryland - Methodology SCRUM - Agile