

João Eduardo Reis (John)

PhD in Mathematics | Data Analysis & Machine Learning Practitioner

[Linkedin](#)

Technical Skills & Practical Experience

- Python, R, SQL, Power BI, Exploratory Data Analysis, Statistical Testing, Model Development and Deployment, HTML.

Certifications

- Massachusetts Institute of Technology – Institute for Data, Systems, and Society (MIT IDSS) (2025): [Data Science and Machine Learning – Making Data-Driven Decisions](#).
- Kaggle Micro-Certifications (2022): Pandas, Data Visualisation, Feature Engineering, Intro to Deep Learning.

Projects (from MIT-IDSS)

- Amazon Product Recommendation System (2025): built a system to recommend products to customers based on their previous ratings for other products. Dataset from Amazon. Models implemented: rank-based recommender, user-based and item-based collaborative filtering, matrix factorisation using SVD, and a hybrid model. Hyperparameter tuning in all. [Github repository](#). [Streamlit app](#).
- Potential Customers Prediction (2025): Created a lead-conversion model prediction. Models implemented: Decision-trees, Random Forest, Gradient Boosting, Logistic Regression and Support Vector Machines (SVM). Hyperparameter tuning in all.
- Customer Personality Segmentation (2025): Identified distinct customer segments, understanding the characteristics, preferences, and purchase behaviours of each group. Clustering methods implemented: K-means, K-medoids, Agglomerative Clustering, and Gaussian Mixture Model. Hyperparameter tuning in all.

Courses (from Mindroom Innovation)

- Integrate Databases with Websites (ICTDBS507): Create websites and databases and integrate them. Programming languages used: HTML, PHP, SQL. Tools used: phpMyAdmin and VSCode.
- Create and develop REST APIs (ICTPRG553): Create APIs. Programming languages used: HTML, Python and SQL. Tools used: Django (web framework) and VSCode.

Work Experience

- Cluey Learning (2023–2024): Provided one-on-one online tutoring in Mathematics for Years 6–9 across Australia.
- Federal University of Catalão (UFCAT, 2019–2021): Substitute Lecturer teaching Calculus and Statistics across Mathematics, Business, and Biological Sciences programs.
- Pontifical Catholic University of Goiás (PUC Goiás, 2014–2019): Lecturer teaching Linear Algebra, Calculus, Analytic Geometry, Differential Equations, and Statistics across Mathematics, Business, Engineering, and Biological Sciences programs.

Undergraduate Thesis Advisor

- Supervised Miller dos Santos Neves on the [Mathematics thesis](#) “*The Theorem of Poincaré–Bendixson*.”

Publication

- [Scientific article](#) (2015): “On Various Types of Shadowing for Geometric Lorenz Flows” – Rocky Mountain Journal of Mathematics

Education

- Mindroom Innovation, Gold Coast, QLD, Australia (2024–2026): Studying Database Management.
- Federal University of Rio de Janeiro, Brazil (2011–2013): Postdoctoral researcher in Mathematics.
- Federal University of Rio de Janeiro, Brazil (2006–2011): [PhD in Mathematics](#) (Dynamical Systems). Dissertation: “Infinitely many periodic orbits for sectional-Anosov flows.”
- Federal University of Goiás, Brazil (2004–2006): Master’s in Mathematics. Thesis: “Riccati Equations in Ruled Surfaces.” (Differential Equations)
- Federal University of Goiás, Brazil (2000–2003): Bachelor’s in Mathematics with foundations in Analysis, Algebra, and Geometry.