João Eduardo Reis
Machine Learning & Web Development Practitioner
PhD in Mathematics
Gold Coast, QLD — Portfolio: www.port2.tech — GitHub — LinkedIn

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Independent Projects (2025–2026)

- **Trade CRM – Multi-Tenant SaaS MVP.** Currently developing this Django-based Customer Relationship Management (CRM) platform for trade and service businesses. Implemented tenant signup, authentication, role-based permissions, client and job workflows, activity tracking, and a dynamic pricebook with category-specific custom fields. (Django, Django REST Framework, PostgreSQL/Neon, JavaScript, Render.) Project Page.
- **Offcuts Inventory System – Real-World Factory Project.** Developed a factory inventory system for tracking reusable board offcuts. The system supports storing, searching, relocating, and withdrawing offcuts using board codes, dimensions, materials, colours, and storage locations, improving traceability of physical stock in a production environment. (Django, PostgreSQL/Neon, JavaScript, Render.) Project Page.
- **Machine Learning Deployment Platform.** Built an end-to-end Machine Learning Deployment Platform integrating automated data ingestion, multi-model forecasting, backtesting, and daily CI/CD pipelines. Delivered two live dashboards (Market & Forecasts) through a Django web interface and designed the system to easily incorporate new Python and R models. (Django, Supabase/PostgreSQL, SQL, GitHub Actions, Render.) Project Page.
- **Data Observability Platform.** Built a production-style data observability platform for data monitoring, using an ELT pipeline into a PostgreSQL data warehouse with a star/dimensional model, automated data-quality and freshness checks, and anomaly detection for alerting and incident management. Dashboards run on secure database views with Row-Level Security and least-privilege role-based access control. (Django, Supabase/PostgreSQL, SQL, GitHub Actions, Render.) Project Page.

Capstone Projects (MIT-IDSS, 2025)

- **Amazon Product Recommender.** Built a recommendation engine to predict products users may like based on past behaviour. (Collaborative Filtering, Matrix Factorisation | Streamlit App.) Project Page.
- **Lead Conversion Prediction.** Developed a model to identify leads most likely to convert into paying customers. (Logistic Regression, Random Forest, Gradient Boosting.) Project Page.
- **Customer Personality Segmentation.** Performed customer segmentation based on purchasing behaviour and demographic traits. (K-Means, Agglomerative Clustering, Gaussian Mixture Models.) Project Page.

Education & Certifications

- **Massachusetts Institute of Technology (MIT), Institute for Data, Systems, and Society (IDSS) (2025):**
  Data Science and Machine Learning: Making Data-Driven Decisions. View Certificate.
- **Mindroom Institute (2024–2026):**
  Diploma in Database Management.
- **IT Courses (Mindroom Institute):**
  - Design Database Systems (SQL, phpMyAdmin).
  - Integrate Databases with Websites (HTML/CSS, PHP, JavaScript, SQL, phpMyAdmin).
  - Create and Develop REST APIs (Django).
  - Manage Data Persistence Using NoSQL Data Stores (MongoDB).
- **Kaggle:** Data Science and Machine Learning courses. View Certificates

- **Federal University of Rio de Janeiro (2011–2013):** Postdoctoral Researcher in Mathematics.
  Federal University of Rio de Janeiro (2006–2011): PhD in Mathematics.
  Federal University of Goiás (2004–2006): Master's in Mathematics.
  Federal University of Goiás (2000–2003): Bachelor's in Mathematics.

Technical Exposure

- **Programming Languages:** Python, R, SQL, PHP, HTML/CSS, JavaScript.
- **Data Science & Machine Learning:** EDA, Statistical Testing, Regression, Classification, Clustering, Time-Series Forecasting.
- **Frameworks & Tools:** Django, Supabase, Neon (PostgreSQL), Streamlit Apps, GitHub Actions, Render, phpMyAdmin, Power Query, Power BI.

Additional Information

- **Research-Oriented:** Scientific publication in an indexed mathematics journal. Publication Link.
- **Mentoring:** Supervised a final-year undergraduate thesis. Thesis PDF.

Work Experience

- **Cluey Learning (Australia, 2023–2024):** Mathematics Tutor (Years 6–9, online).
- **Federal University of Catalão (Brazil, 2019–2021):** Substitute Lecturer (Calculus, Statistics).
- **Pontifical Catholic University of Goiás (Brazil, 2014–2019):** Lecturer (Algebra, Calculus, Geometry, Differential Equations, Statistics).