# Rui Moreira *Data Engineer*

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## 💼 PROFESSIONAL EXPERIENCE

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**CO-FOUNDER,** Brainn      Nov 2023 – present
*A tech spin-off from Kaizen Institute specializing in data-driven software development.*    Porto, Portugal

**HEAD OF ENGINEERING,** Foliume ⧉      May 2023 – present
   Porto, Portugal

*Insurtech Startup building an AI SaaS for Churn prediction and Cross-selling campaigns*
**Responsibilities:**
- Leading the organization with the best practices for collaborative software development
- Improving the software scalability to reach 10x clients with the same workforce
- Improving the software reliability with CI/CD, automation and testing environments

**Tech stack:**
   **Programming:** Python, JavaScript, SQL
   **Frameworks:** Remix.js, Data Version Control
   **Cloud:** AWS (S3, Lambda, Transfer Family)
   **Version Control:** GitHub (with Actions - CI/CD)

**DATA ENGINEER,** Google ⧉      Jun 2022 – May 2023
*Part of Google Technical Services (gTech), working in Travel Analytics Center (TAC) product*    Zürich, Switzerland
**Responsibilities:**
- Building and maintaining big data pipelines running billions of data points daily
- Developing dashboards for TAC, with actionable insights to airlines
- Refactoring TAC to be more scalable, enabling a faster product growth

**Tech stack:**
   **Programming:** SQL, Python, HTML, CSS
   **Infrastructure:** F1 (~ Hive), CNS (~HDFS), Plx Workflows (~Airflow)
   **BI**: Looker, Plx Dashboards (~Tableau)
   **Cloud:** GCP (BigQuery, Google Analytics API, Geolocation APIs)
   **Version Control:** Piper, Critique (~GitHub)

**SOFTWARE DEVELOPER,** ETH Zürich ⧉      Sep 2021 – May 2022
*Public research university consistently ranked among the top 10 universities worldwide*    Zürich, Switzerland
**Responsibilities:**
- Full-stack developer of analytical web applications for the Structural Mechanics course, acknowledged as the best app of 2022 by the Community Manager of Plotly Dash
- Software developer of the ML package UQCloud, in collaboration with other PhD's

**Tech stack:**
   **Programming:** Python, MATLAB, JavaScript, HTML, CSS
   **Frameworks:** Dash, Flask, Bootstrap, React.js
   **Cloud:** Heroku
   **Version control:** GitLab

**DATA SCIENTIST,** Tonic App ⧉      Aug 2020 – Mar 2022
*Tech startup that developed a professional mobile platform for medical doctors*    Porto, Portugal
**Responsibilities**:
- Defining the data governance strategy and developing a data warehouse for the app data
- Developing full-stack analytics solutions for investors, C-level, product and growth teams
- Acquisition, retention and user behavior analysis for product improvement

**Tech stack:**
   **Programming:** Python (NumPy, pandas, seaborn, plotly, CARTO,...)
   **Infrastructure:** Docker, mySQL, postgreSQL, Datadog
   **BI:** Looker, Mixpanel (Product Analytics)

**Cloud:** AWS (ECS, Fargate, Aurora, Kinesis, S3, Glue, Athena)
**Version control:** GitLab (with CI/CD pipelines)

**DATA SCIENTIST,** BA Glass ⧉                                    Sep 2018 – Mar 2022
*One of the largest manufacturers of glass containers in Europe*          Porto, Portugal

**Responsibilities:**
- Fully developed a scalable ML based Web App with MLOps integration that optimizes energy consumption in glass furnaces, saving 100k€ after 10 months in production
- Developing a Model Predictive Controller combining ML with differential equations control and stabilize a multi-input and multi-output complex manufacturing process
- Data science advisor of several corporate departments for analytics projects: sales forecast (planning), pricing (marketing) and logistics route optimization (transports)

**Tech stack:**
**Programming:** Python (PySpark, scikit-learn, TensorFlow, pandas, matplotlib, plotly, ...)
**Infrastructure:** Docker, Airflow, Spark, PostgreSQL, InfluxDB
**BI:** Dash, SAP Analytics Cloud, PTC ThingWorx
**Cloud:** Azure (Databricks, Machine Learning, Data Lake)
**Version Control:** GitHub, Azure DevOps

**MECHANICAL ENGINEER,** INEGI ⧉                                    Jul 2016 – Sep 2018
*Institute of Science and Innovation in Mechanical and Industrial Engineering*      Porto, Portugal
**Responsibilities:**
- End-to-end product development of a 3D printer for carbon fiber reinforced parts
- Scientific research in high performance thermoplastics
- Topology optimization for weight reduction of a professional canoe

**Tech stack:** MATLAB, LabVIEW, TwinCAT, SolidWorks, Abaqus

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## 🎓 EDUCATION

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**Data Engineering Nanodegree,** Udacity ⧉                                    2020
5-month e-course to learn how to design data models, build data warehouses and data          Remote
lakes, automate data pipelines and work with big data.
**Tech stack:** SQL, NoSQL, Hadoop, Apache Cassandra, Spark and Airflow

**Data Science Bootcamp,** IE Business School ⧉                                    2019
500-hour intensive program focused on coding, data mining and visualization, machine          Madrid, Spain
learning, statistics and storytelling
**Tech stack:** Python, R, SQL, LIDAR

**MSc in Automation, Instrumentation and Control,** FEUP ⧉                          2014 – 2016
                                                                  Porto, Portugal

**BSc in Mechanical Engineering,** FEUP ⧉                                    2010 – 2016
                                                                  Porto, Portugal

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## 📖 PUBLICATIONS

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**Conference Proceedings,** XIII Iberoamerican Conference on Mechanical Engineering ⧉          2017
Additive Manufacturing based hybrid processes for long or continuous fiber reinforced
polymeric matrix composites

**Master's thesis,** FEUP - Faculty of Engineering of the University of Porto ⧉          2016
Conceiving a non-contact measurement system for the polymer temperature at the nozzle
exit of a FDM 3D printer

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## 🌐 LANGUAGES

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| Portuguese | English | Spanish |
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| Native | Full professional proficiency | Limited working proficiency |