

# João Pereira dos Santos

## Business Intelligence Intern in Transportation & Supply Chain Inbound Cross-Dock Team (EU-IXD) @ Amazon

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📍 Porto, Portugal



## EXPERIENCE

### Business Intelligence Intern

#### Amazon EU, SARL

📅 02/2021 - Ongoing 📍 Luxembourg, Luxembourg

🌐 amazon.com

#### Transportation & Supply Chain Inbound Cross-Dock Team EU-IXD

- **Placement Impact Calculator & Algorithm** (End to end algorithm and automation with AWS services: EC2 instances, SageMaker and Web Application with Elastic Beanstalk)
- **New Metric - Spread Bias** (Semi-Automated Jupyter Notebook Code & Markdown paper with interactive .html python code preview and interactive Plotly graphs, Placement Impact bridge with Pearson Correlation Analysis and SQL script for use in production)
- **Analysis on the IXD Optimization Model Hard Constraint & Impact on Placement** (Semi-Automated Jupyter Notebook Code & Markdown paper with interactive .html python code preview and interactive Plotly graphs)
- **Analysis on the EU S&OP & SC Data Science Team Simulated IXD Optimization Model** (Front End Dash Web Application deployed on AWS Elastic Beanstalk based on Python: Plotly, Pandas and SciPy for Box-Cox Transformations and OLS Regression)
- **Arc Bin Level Forecast** (AWS SageMaker with Python: Pandas, Matplotlib, NumPy, Pmdarima and FBProphet, AWS RedShift and AWS QuickSight)
- **Tote Utilization Dashboard** (Data Pipeline between 2 AWS RedShift Clusters, Daily Maintenance of 6 Tables with SQL ETL Manager and AWS QuickSight)
- **Centralized Fluid Loading Dashboard** (SQL Extract Jobs and Microsoft Power BI)
- **Case Breaking & Impact on Item Selection** (SQL Extract Jobs and Statistical Analysis with Excel: Pearson Correlation Coefficient, P-Value and Linear Regression)

### Data Analyst Trainee

#### Amkor Technology Portugal, SA

📅 09/2020 - 01/2021 📍 Mindelo, Portugal

🌐 amkor.com

#### Physical Failure Analysis & Reliability Request Management Process Optimization

- **Automated Job Prioritization Tool** (SQL Extract Jobs and Excel: VBA, Power Query)
- **Dashboard Prototype** (Front End Web Application with Python: Dash and Statistical Analysis with Pandas, Statsmodels and Plotly)

### Master Thesis Project

#### Amkor Technology Portugal, SA

📅 02/2020 - 07/2020 📍 Mindelo, Portugal

🌐 amkor.com

#### Qualitative and Quantitative Statistical Analysis in Copper Electroplating Baths

- **Modeling of Electroplating Chemical Components and Total Organic Contaminations Concentrations** (Excel and Minitab)
- **Dashboard Prototype** (Microsoft Power BI)

## EDUCATION

### MSc in Chemical Engineering - Processes and Product

#### Faculdade de Engenharia da Universidade do Porto

📅 09/2015 - 07/2020 📍 Porto, Portugal

### Sciences et Technologies: Mathématiques, Informatique, Sciences de la Matière et de l'Ingénieur

#### Université de Bordeaux

📅 02/2015 - 06/2015 📍 Bordeaux, France

### Classes Préparatoires aux Grandes Écoles, Mathématiques Supérieures: Physique, Chimie et Sciences de l'Ingénieur

#### Lycée Fabert

📅 09/2014 - 01/2015 📍 Metz, France

### Baccalauréat Scientifique

#### Lycée Français International de Porto

📅 09/2011 - 07/2014 📍 Porto, Portugal

## LANGUAGES

Portuguese Native

French Proficient

English Proficient

Spanish Advanced

## VOLUNTEERING

### Homeless Housing Rehabilitation

#### Just a Change

📅 10/2018 - 02/2018

### Sports Charity Event and Fundraising

#### Liga Nacional Contra a Fome

📅 12/2016

## EXPERIENCE

### Summer Research Intern

#### Continental ITA, SA

08/2019 - 09/2019 Lousado, Portugal

continental.com

Antifoaming Agent Study for Process Optimization in DIP Content Tire Textile Reinforcement

## PROJECTS

### Winner of the Hack@Home III by Tech@Catolica A Second Wave Analysis of COVID-19

12/2020

linkedin.com/company/tech-at-catolica/

Forecasting one week of COVID-19 cumulative confirmed cases with Gompertz, ARIMA, FBProphet, XGBoost and Neural Network models. Mean Absolute Percentage Error (MAPE) of 0.7%

### Winner of the 2018 Academic Games of Engineering by AEFEUP

02/2018 - 04/2018

aefeup.pt/age/

Designing a continuous hydrothermal liquefaction (HTL) biomass processing unit for Paralab, SA

## CERTIFICATIONS & MOOC

### AWS Certified Cloud Practitioner | Amazon Web Services

AWS Cloud and basic architectural principles; Value proposition; Key services; Basic security and compliance; Billing, account management, and pricing models; Basic/core characteristics of deploying and operating in the AWS Cloud. (Exam Score: 89.3%)

### Interactive Python Dashboards with Plotly and Dash | Udemy

Bar Charts, Line Charts, Scatter Plots, Heat Maps, etc; Create Layouts with Plotly's Dash library; Dash for interactive components with Plotly; Connect multiple inputs and outputs with a dashboard; Live interactive graphs with clicks and hover overs; Live updating data for streaming information; Security with App Authorization; Deploying to the internet with services like Heroku. (9.5 Hours)

### Data Analyst with SQL Server | DataCamp

Database Objects: Create and alter tables, views, modify constraints, DML triggers; Work With Data: Queries, sub-queries, data types, aggregate queries, manage XML data; Modify Data: Stored procedures; Combine datasets, Work with functions; Troubleshoot And Optimize, Implement error handling. (45 Hours)

### Process Mining Expert | Celonis

Data Engineer Training: Technically connect and maintain Celonis processes; Analyst Training: Translate data into actionable business insights. Create target oriented analyses to transform your business; Business User Training: Simplify your daily work. Get intelligent recommendations to execute the right actions. (30 Hours)

### The Data Science Course 2020: Complete Data Science Bootcamp 365Carrers | Udemy

Statistical analysis; NumPy; Pandas; Matplotlib; Seaborn; Tableau; Machine Learning with stats models and scikit-learn; Underfitting, overfitting, training, validation, k-fold cross validation, testing, hyperparameters tuning; Deep learning with TensorFlow. (29 Hours)

## ADDITIONAL DETAILS

### Data Science Enthusiast

joaopereiradsantos.com  
twitter.com/joao96santos/  
kaggle.com/joaopereiradsantos/  
github.com/joaopereiradsantos/

### Participated in the 2020 EUREKathon - Challenge Data for Zero Hunger

Data-driven competition that addresses societal issues associated with sustainable development goals. Develop concrete and creative solutions that contribute to maximize access by all people to sufficient food all year round.  
Partner: Banco Alimentar Contra a Fome

### 3x Team Leader at the European BEST Engineering Competition Challenge - Team Design

Practical test consisting of the construction of a prototype, with limited materials and low cost, to solve a proposed problem

### Team Leader at the European BEST Engineering Competition Challenge - Case Study

Analysis of a real-life problem using the information provided to develop hypothetical solutions without building any prototype

## SPORTS

### Padel Coach 2019 Course - Level I

Approved by Federação Portuguesa de Padel and Instituto Português do Desporto e Juventude

### Padel at Top-Padel Industrial

Level II Competition  
Participated on the 2018 and 2019 National University Championship

### Tennis at Clube de Ténis do Porto

Competitive Level