

# Renato Santos Aranha

Tijuca, Rio de Janeiro, RJ, BR

✉ errearanhas@gmail.com • in raranha • errearanhas

Data Scientist. Bachelor in Physics, MSc in Applied Mathematics and PhD student in Artificial Intelligence. Highly interested in statistical learning, machine learning techniques and advanced analytics in general.

## Experience

---

- IBM Research

Rio de Janeiro, RJ, Brazil

  - *PhD Research Intern*  
*Jan 2020–now*  
Research in Artificial Intelligence and Geostatistics, under the Natural Resources Analytics group at IBM Research Brazil.
- Fundação Getulio Vargas - FGV

Rio de Janeiro, RJ, Brazil

  - *Research Assistant (Data Scientist)*  
*Jun 2019–now*  
Tunneling in the public sector project\*: Tunneling is resource transfer out of firms for the benefit of its controllers, and in the public sector, it may be classified as corruption act. Activities: Mining data from primary and secondary sources; Web Scraping; Data prep; Analyzing and interpreting results. Tools: Python programming (Pandas, Selenium, SQLite3, Requests, NLTK, Matplotlib). \*Gustavo Cesario's PhD project.  
  
*Research Assistant (Data Scientist)* *Sep 2017–Jun 2019*  
IPC-W project: Online prices (e-commerce) daily collected in order to elaborate an inflation index. Activities: methodology development, documentation (PDF, BitBucket, PEP 257), Python programming (Pandas, Numpy, Scikit-learn, Plotly, DASH, Seaborn, Matplotlib), Data analysis (EDA, data preparation, aggregation and visualization) and Heroku deployment with Git.
- Cognitivo.ai

Rio de Janeiro, RJ, Brazil

  - *Data Science Project Manager*  
*Mar 2018–Jul 2019*  
Responsible for team-building, communication with clients, project pipelines (agile methods) and all aspects of development and deployment for delivering solutions according to business requirements.
- B2W Digital

Rio de Janeiro, RJ, Brazil

  - *Advanced Analytics Coordinator*  
*May 2015–Aug 2017*  
Analytics team leader. During this time, my focus was on describe and infer trends/patterns to provide data driven inputs for Marketing, Sales and Customer service teams. Usual tasks: Lead development and deployment of Competitive Intelligence and Data Science projects using competitors data.

#### *Data Mining Coordinator*

*Apr 2015–May 2015*

Responsible for Data Mining projects for Marketing, using *CRISP-DM* and *SEMMA* methodologies, and for developing reports based on Marketing needs (focus on customer data). Besides management activities, I also worked in development and deployment of models for customer segmentation, market basket analysis and CLV.

#### *Marketplace Coordinator (Analytics / Front-end)*

*Oct 2013–Apr 2015*

Dual role. **Analytics:** Data driven inputs for Marketing and Sales; competitive intelligence; Statistical modeling for forecasting sales of Marketplace sellers; general performance KPI's definition; Executive reports development (layout and content); **Front-end:** Product Owner; Specification of Marketplace data structure for BI platform; Design of automated surveys with Marketplace customers.

#### *Data Mining/CRM Coordinator*

*Jun 2012–Oct 2013*

Main responsibilities: Provide Data driven inputs for Marketing and Sales; Customer Analytics; Elaborate business goals for customer acquisition and retention; Development of executive reports (layout and content).

#### *Data Mining/CRM Analyst*

*Jul 2011–Jun 2012*

Activities: Statistical Analysis for Marketing (mainly using SAS Enterprise Guide); Web Analytics KPI's monitoring; Executive reports (layout) development; Mapping and troubleshooting through Lean Six Sigma approach; Comscore and GfK accounts management.

#### *Business Intelligence Trainee*

*Jan 2010–Jul 2011*

Activities: Development of technical and functional specification documents; Data source mapping for Product Basket modeling project; Database model validation; Specification of data tables in SAS project (a statistical project); Interface with Marketing and Sales.

## Education

---

### Academic.....

#### **PhD, Artificial Intelligence**

**2019–2023**

- *Federal University of Rio de Janeiro (UFRJ), Systems and Computing Engineering Program*

#### **MSc, Applied Mathematics**

**2017–2019**

- *Fundação Getulio Vargas (FGV), School of Applied Mathematics*

#### **BSc, Physics**

**2004–2009**

- *Federal University of Rio de Janeiro (UFRJ), Physics Institute*

### Other courses.....

#### **Deep Learning Specialization (DeepLearning.ai)**

**2020**

- *Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, Convolutional Neural Networks, Sequence Models*

#### **Johns Hopkins University (Coursera)**

**2015**

- *R Programming, The Data Scientist's Toolbox*

- **SAS Training Institute, BR**
  - SAS Enterprise Guide: ANOVA, Regression, and Logistic Regression*
  - SAS Enterprise Guide – Querying and Reporting*

**2012–2013**

## Technical skills

---

- **Programming Languages:** Python, SQL (especially PL/SQL), Julia, SAS Base,  $\text{\LaTeX}$ , R.
- **Industry Analytics Software:** SAS Enterprise Guide/Miner, Tableau, Plotly and Most MS Office products.