Personal information

Name:	Osvaldo Luiz dos Santos Pereira.
Natural:	Belém-PA-Brazil, december 12 of 1982.
phone:	+55 11 966435264.
email:	osvald23@gmail.com
LinkedIn:	https://www.linkedin.com/in/osvaldo-pereira
Curriculum Lattes:	http://lattes.cnpq.br/6730251976463283
Personal webpage:	https://www.sciencedata.ai/osvaldolspereira

Summary

Bs. and Msc. in Physics from State University of Campinas (Unicamp). Researching in physics from Federal University of Rio de Janeiro (UFRJ) in classical gravitation supervised by Marcelo Byrro Ribeiro (mbr@if.ufrj.br) and Everton Murilo Carvalho de Abreu (everton@if.ufrj.br), also PhD candidate for UFRJ. Currently consulting for Sirio Libanês Hospital as a senior specialist data scientist. Previously worked as senior specialist data scientis at CI&T and before that at the PROSUB Brazilian Nuclear Submarine project as a senior data scientist for Itaguaí Naval Construction a brazilian brench of Naval Group. Before that worked as a R&D analyst, credit risk analyst and data scientist at Itaú-Unibanco Bank. Working with data analysis for twenty years as researcher in physics and for ten years as a data scientist working in the private sector.

Technology

Cloud (AWS, Azure, IBM, Databricks), Big Data, languages (Python, R, PySpark, Spark, Matlab, Mathematica, Sage Manifold, SAS, SQL), MS Office. Data visualization (Power BI, Power Query, Tableau, Qlik, Python Dash, Seaborn, Bokeh). Web digital (Google Analytics). Text editing (LaTeX, Word, Publisher). Neural Network (Pytorch, Keras, Tensorflow). Statistics (SPSS, SAS, Minitab).

Skills

Statistical and mathematical modeling, predictive models, ad-hoc models, machine learning, neural networks, knowledge management, instructional design, technical book writer, technical documentation, programming, teaching (mathematics, physics, programming and data science).

Languages and international experience

C2 level (fluent) in english (CEFR). Completed my high school as a foreing exchange student at Greenwood, IN, US.

Professional History

[Sep/2019 - Actual] Hospital Sírio Libanês - Senior specialist data scientist.

[Oct/2018 - Oct/2019] (CI&T) - Senior specialist data scientist.

[Apr/2017 - Oct/2018] Itaguaí Construções Navais - Senior specialist data scientist.

[Jan/2017 - Actual] Fellow Researcher at Physics Institute, UFRJ.

[Apr/2011 - Dec/2015] Itaú-Unibanco - Data scientist, risk analyst, R&D analyst, Planning analyst.

Professional Experience

Actual Sep 2019	**Sr. Especialist Data Scientist at Sírio Libanês Hospital, São Paulo** *Hospital*

- Ad-hoc models for resource allocation for B2B family medical doctor, via Bayesian Neural Network using Carr-Hill skill and sla as targets.
- ASCVD modeling deploy for self service, API and web app uses.
- Predictive scoring modeling for cardiovascular disease and deploy.
- AWS machine learning model deploy.
- Creator and instructor for data analytics institutional course.

Oct 2019 Oct 2018	**Sr Especialist Data Scientist at C&T, São Paulo** *Digital Transformation*

- Coca-Cola: Predictive models using clustering algorithms for client profiling and basket analysis.
- Bradesco Bank: Web analytics. Descriptive analysis. Advanced analytics. Ad-hoc models. Clustering algorithms for client profiling.
- Sulamerica (Insurance): Geolocation models for apps. Web analytics. Self service BI.
- Nestlé: Operational research and optimization.

Oct 2018 Apr 2017	**Sr Specialist Data Scientist at Itaguaí Construções Navais (ICN), Itaguaí** *Naval Defense*

- Young apprentice program coordinator. Prototyping, Design thinking. Scrum master, technical facilitator. Project owner.
- Knowledge management: instructional designer.
- Business Intelligence.
- People Analytics. Complexity models for people dynamics. Neural networks models for enterprise social network. Valuation. Financial analysis. Business intelligence.
- Health Analytics: predictive models for health risks. Advanced analytics. Ad-hoc models. Dashboards. Self service BI. Creation of KPI monitoring.
- Big Data, data mining for data lake construction.

Dec 2016 Jan 2016	**Technical consultant at Kroton, Campinas e Região** *Higher Education*

- Technical consultant: Princípios de Eletricidade e Magnetismo (ISBN 978-85-8482-883-8).
- Co-author: Dinâmica de Corpos Rígidos (ISBN 978-85-8482-813-5).

Professional Experience

Dec 2015
Jan 2015

Planning analyst and data scientist at Itaú-Unibanco
Banks

- Mathematical and statistical modeling. Ad-hoc models for financial analytics. Operational research.
- Neural network model for retail planning and capacity.
- Advanced analytics for client and agency profitability. Panel data analysis. Time series analysis of profit history. Profiting optimization via ad-hoc models.

Dec 2014
Jun 2013

Credit risk analyst and data scientist at Itaú-Unibanco
Banks

- Technical credit scoring model validation and other scoring models (Basel II e III).
- ICAAP technical model validation (microeconomic, macroeconomid models, time series analysis and auto regressive models).
- Scpecial models technical validation: PDD, credit cards, collection models. PD, EAD, LGD models.
- Income and earnings models technical validation.
- Economic cycle model technical validation.
- Cluster analytics (K-Means) for credit scoring models and finding homogeneous groups.

Jun 2013
Jan 2012

Planning analyst and data scientist at Itaú-Unibanco
Banks

- Clustering models for client profiling and pattern discovery for relationship with bank and product usage.
- Ad-hoc mathematical modeling for CRM use of product suggestion for costumers based on their spending patterns. Profiting analysis and client rentability analytics.
- Market analysis ad-hoc mathematical model for closing retail agencies, profiting optimization via financial and commercial KPI, portfolio analysis.
- Clustering models for agencies patterns discovery and profiling for rentability optimization and target planning.
- Portfolio analysis for profition optimization via patter analysis for clients patterns of bank product usage. Product rentability valuation.
- Neural network model for capacity planning in retail network agencies througout the country using marketing characteristics and client and transaction flow patterns in each agency.
- Pragmatic application of Gaussian mixture clustering model for patter recognition in retail agencies for target planning. .

Dec 2011
Apr 2011

R&D analyst at Itaú-Unibanco
Banks

- CRM models, basket analysis, client profiling via clustering models and algorithms.
- Research and development (R&D) in data analytics. Financial and profiting analysis, customer relationship ad-hoc models.
- Machine learning models for pattern usage of credit and debit cardd.
- CRM ad-hoc mathematical models for specific bank products in retail.

Professional Experience

Jan 2012 *Jan 2010*	Hired Professor at Centro Universitário Padre Anchieta *University* • Teaching differential and integral calculus. • Educational material writer: lecture notes, books.

Higher Education

Actual *Jan 2017*	PhD Physics, **UFRJ**, Rio de Janeiro. *"Warp Drive: Superluminal Global Motion of Particles within General Relativity."* (Doutorado sem bolsa) *Phd Supervisors:* Prof. Dr. Marcelo Byrro e Prof. Dr. Everton Murilo Carvalho de Abreu.
Jun 2011 *Jan 2010*	Research in applied computational mathematics, **IMECC-UNICAMP**, Campinas. *"Análise de grupos em simetria de pontos de Lie de equações diferenciais."* (Bolsa Institucional) *Supervisor:* Yuri Bozhkov
Dec 2009 *Aug 2007*	Masters in Physics, **IFGW-UNICAMP**, Campinas. *"Estudo comparativo das respostas de monitores de Rn-222 que utilizam o CR-39 como detector de tracos de particulas alfa."* Bolsista da Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) *Supervisors: Prof. Dr. Julio Cesar Hadler Neto e Dr. Pedro Jose Iunes (deceased).*
Dec 2009 *Aug 2007*	Bachelor of science in Physics , **IFGW-UNICAMP**, Campinas. *"Otimização de um sistema de detecção da atividade alfa do 222Rn e filhos no ar ambiental e comparação entre este sistema, que utiliza o CR-39 como detector e outro, que utiliza o LR-115."* Bolsista da Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) *Supervisors: Prof. Dr. Julio Cesar Hadler Neto e Dr. Pedro Jose Iunes (deceased).*

Languages

Portuguese:	Mother language
English:	Fluent (reading, writing, listening, speaking)

Computing

- Mathematical and statistical softwares: SAS Guide, Mathematica, Matlab, e-views, Sage Manifold, Excel, SPSS, Minitab, Origin, Geogebra.
- Data visualization: Power BI, Tableau, Qlik, Power View.
- Programming languages: Python, R, SAS Data Set, SQL.
- Big Data: Spark, PySpark.
- Cloud: AWS, IBM, Databricks, Google.
- Text editing: LaTeX, Word.

Specific Skills

- Time series analysis. Forecasting. Markov chains. Monte Carlo simulation.
- multi linear and Linear regression models, generalized linera models, descriptive statistics, probability and statistics, statistical inference.
- Data Mining. Data manipulation and modeling. Regex.
- Clustering analysis.
- Advanced mathematics: differential equations (partial and ordinary), tensor analysis, matrix analysis and calculations, differential geometry, modeling.
- Machine learning models (supervised, unsupervised, semi supervised).
- Linear and non linear optimization. Operational research.
- Neural networks.
- Econometrics, Valuation, financial analysis.

International Experience

- High School senior year as at Greenwood, IN,US.

Professional Interests

- Economics, finances.
- Science, mathematics, data Science.
- Defense industry
- Energetic sector.
- Science, technology, research and development.
- Higher education.
- Consultant.

Publications

- HADLER, J ; NEMAN, R ; IUNES, P ; PEREIRA, O ; PAULO, S ; O. L. S., PEREIRA . Indoor radon and radon progeny survey at Campinas Brazil using CR-39: Final results. Radiation Measurements, v. 43, p. S440-S444, 2008.
- Carlos Sato Baraldi, Osvaldo Luiz dos Santos Pereira. Dinâmica de Corpos Rígidos, Londrina: Editora e Distribuidora Educacional AS, 2017. ISBN 978-85-8482-813-5.