# Edson Duarte

# Tech Lead, Data Scientist and Cloud Engineer

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Good data architecture is a living, breathing thing. It's never finished.

Fundamentals of Data Engineering by Joe Reis and Matt Housley

### Summary

Data Platform Engineer since 2023

Tech Lead since 2021

Data Engineer since 2018

Data Scientist since 2014

Software Engineer since 2007

Published 3 research papers since 2017

Certified Google Cloud Engineer since 2023

#### Tech Skills and Stacks

Certifications Google Cloud Digital Leader by Google (until 2026), Google Certified Associate Cloud Engineer by A Cloud Guru, IBM Quantum Achievement by IBM

Advanced Data Science (Python, scikit-learn, keras, tensorflow, numpy, scipy, bokeh), Data Engineering (ETL, ELT, Apache Airflow), Data Exploration (pandas, jupyter, Databricks, Apache Superset),

Intermediate Platform Engineering, Cloud Engineering (GCP, Pulumi, Terraform, Azure, AWS), GNU/Linux (Arch, Ubuntu), Microservices (Java, Python, Spring, Quarkus, Docker, Kubernetes), Stream and Batch (Apache Spark, Apache Pulsar, Dataflow), Databases (Relational, Documents and Time-series)

#### Experience

#### Professional

2023 – present **Lead Data Platform Engineer and Cloud Engineer**, *Venturus*, Campinas, São Paulo, Brazil

2018 - present Data Scientist, Numerai

- Participating in the main tournament using all 50 model slots.
- Achieved a ROI of 140% during 2021 and a ROI of 75% during 2020.

2021 – 2023 Lead Data Scientist, Venturus, Campinas, São Paulo, Brazil
 Worked as Lead Data Scientist in a project for a Global Leader of the Payments sector in a Data Science solution and platform to enable insights on their operations.

2021 – 2022 **Data Science Chapter Lead**, *Venturus*, Campinas, São Paulo, Brazil, Worked as Chapter Lead of Data Science helping the company nurture the culture of knowledge sharing and continuous learning of everything related to Data Disciplines.

2019 – 2021 Software Engineer, Venturus, Campinas, São Paulo, Brazil

Worked as a Software Engineer on the development of a payment processing distributed system using the microservices architecture, while also contributing to the general architecture, the application of agile methodology and test planning and deployment.

- 2015 2019 Mobile Developer Internship, Watermelon Tecnologia, Campinas, São Paulo, Brazil
  - Development in apps focused on learning, routing, delivery and video conferencing solutions.
  - Using MVC and MVVC architectures, dependency injection, reactive programming and many platform APIs.
  - Used tools like Rx, Room, Dagger, Retrofit, Alamofire, Realm, Twillio, Google Maps.

Academic

2017 – 2019 **Machine Learning Researcher**, *Universidade Estadual de Campinas (University of Campinas - UNICAMP)*, Campinas, São Paulo, Brazil

In this Bug Triage project we used NLP and ML techiniques to help triage teams on selecting the proper tech teams for resolution of issue tickets.

Grant: Motorola Mobility, Instituto Eldorado and Funcamp (UNICAMP)

Advisors: Prof. Jacques Wainer (IC-UNICAMP) and Prof. Eduardo Valle (FEEC-UNICAMP)

2016 **Machine Learning Researcher**, *Universidade Estadual de Campinas (University of Campinas - UNICAMP)*, Campinas, São Paulo, Brazil

In this project we used NLP and ML techiniques to help triage teams on the assesment of battery related problems on mobile devices.

Grant: Motorola Mobility, Instituto Eldorado and Funcamp (UNICAMP)

Advisors: Prof. Jacques Wainer (IC-UNICAMP), Prof. Eduardo Valle (FEEC-UNICAMP) and Prof. Siome Goldstein (IC-UNICAMP)

2014 – 2016 **Machine Learning Research**, *Universidade Estadual de Campinas (University of Campinas - UNICAMP)*, Campinas, São Paulo, Brazil

In this research we studied the application of Support Vector Machines using altenate formulations and methods of hyper-parameter optimization.

Advisor: Prof. Jacques Wainer (IC-UNICAMP)

**Publications** 

2023 An empirical study of learning-to-rank for spare parts consumption in the repair process, *Expert Systems* 

Co-author with Daniel de Haro Moraes and Lucas Leonardo Padula https://doi.org/10.22541/au.167303810.03231830/v1

2022 A Learning-to-Rank Approach for Spare Parts Consumption in the Repair Process, *Springer, Cham* 

Co-author with Daniel de Haro Moraes and Lucas Leonardo Padula https://doi.org/10.1007/978-3-031-16474-3\_50

2017 Empirical comparison of cross-validation and internal metrics for tuning SVM hyperparameters, Pattern Recognition Letters

Co-author with Prof. Jacques Wainer (IC-UNICAMP)

https://doi.org/10.1016/j.patrec.2017.01.007

Community Service

2013 – 2014 **Project Management**, *Consultoria, Projetos e Pesquisas em Computação (CONPEC)*, Campinas, São Paulo, Brazil Voluntary work managing projects

- 2014/15 **Volunteer**, *Olimpíada Brasileira de Informática (OBI)*, Campinas, São Paulo, Brazil Voluntary work monitoring the written tests
- 2013 2014 **Member of College Groups**, *Conpec, AAACEC, CACo, Núcleo*, Campinas, São Paulo, Brazil

## Education

2013 – 2020 **Computer Engineering**, *Universidade Estadual de Campinas (University of Campinas - UNICAMP)*, Campinas, São Paulo, Brazil

2013 – 2020 **Computer Science**, *Universidade Estadual de Campinas (University of Campinas - UNICAMP)*, Campinas, São Paulo, Brazil

### Languages

Portuguese Fluent Native Language

English Advanced Course at Escola de Idiomas Cultura Inglesa, 2009 – 2011

Russian Basic Course at Centro de Estudo de Línguas (CEL), UNICAMP, 2013 - 2014

Spanish Basic Course at Escola Estadual Prof. João Dias da Silveira, 2002 – 2004

#### Other Interests

Freedom, science fiction, Free and Open Source Software, alternative rock, Open Science, movies, politics, electronic music, secularism, artificial intelligence, sciences and philosophy.