

Pedro Calais, P.hD.

Software Engineer

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I am a computer scientist with a combined experience of 7+ years in academia and 7+ years in the tech industry.

My passion is building useful software in a pragmatic manner backed up by elegant algorithms operating over small-scale and large-scale data.

I like working closely to the product team and contributing simultaneously in the code and systems level and in the product vision.



Work History

2018-08 - Current

Software Engineer / Engineering Manager

Loggi, São Paulo, SP

- Managed a team of 7 engineers
- Designed the integration microservice using Kotlin, Apache Camel and Apache Kafka
- Dropped by 5x the need of writing code by relying on enterprise integration patterns and the integration framework Apache Camel
- Used ANTLR to replace manually written parsers by automatically generated parsers
- Gave an in-house one-semester algorithms and data structures class targeted to the company junior software engineers

2015-06 - 2018-08

Software Engineer

Worldsense, Belo Horizonte, MG

- Saw an online advertising startup born from day 0
- Built an information-retrieval system that automatically found opportunities to add sponsored links with over 1% CTR (click-through rate) in web pages

2014-04 - 2015-04

Data Scientist

Big Data Brasil, São Paulo, SP

- Created machine learning models based on demographic and economic data which successfully predicted where businesses should expand their services in Brazil

2008-02 - 2009-04

Junior Consultant



Education

2009-04 - 2015-08

Ph.D.: Computer Science

UFMG - Brazil

- Thesis: Sentiment Analysis on Multipolarized Social Networks
- Work funded by a Google Brazil Research Grant AND UOL Inc. Research Grant
- 4 Papers published in top CS conferences: AAAI ICWSM, ACM WSDM AND ACM SIGKDD
- Embedded social psychology theories into real-time sentiment analysis algorithms
- Designed algorithms able to track sentiment in real-time in social networks despite the lack of labeled data and domains exhibiting high concept drift

2012-10 - 2013-07

Visiting PhD Student: Computer Science

Cornell University - Ithaca, NY, USA

2007-03 - 2009-03

Master of Science: Computer Science

UFMG - Brazil

- Thesis: Identifying and Characterizing Spam Campaigns from Honeypots
- Work supported by the Brazilian Internet Steering Committee (CGI.br)
- 4 papers published in the CEAS (Conference on e-mail and anti-spam) conference
- Designed a novel prefix tree-based clustering algorithm that clustered spam emails into spam campaigns
- Used association rule mining to unveil how spammers disseminate spam campaigns to abuse the internet infrastructure.

2002-10 - 2006-07

Bachelor of Science: Computer Science

UFMG - Brazil

- Graduated with 3.8 (out of 4.0) GPA.
- Awarded golden medal as the student with the highest GPA in the class



Skills

Python

Kotlin

Scala

Data Mining

Machine Learning

Software engineering

Enterprise Integration Patterns