

# Tiago Henrique Costa Alves

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## ABOUT ME

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I'm the CTO at Kunumi with experience in many fields of machine learning and data science, such as time-series prediction, anomaly detection, natural language processing, and reinforcement learning. I have developed methods to analyze, model, and get insights from all types of data, while also developing software to extract value from the models created. As a former Data Scientist, I was able to work developing tools and frameworks to boost other data scientists' productivity, while also developing bank credit scoring models, medical assistance models, and more. Currently, I manage several teams to help them achieve their best performance and deliver high-quality machine learning systems. I'm also motivated by challenges and believe that a new problem is always an opportunity to learn and discover new solutions.

I have a Masters Degree in Computer Science by the Federal University of Minas Gerais (UFMG) with focus in Deep Learning where I studied Information Retrieval, Recommender Systems, Data Visualization and Machine Learning. While in college, I studied abroad for a year, in the University of Roma Tre, in Italy.

Professionally, I aim to become a personal and technical reference for my colleagues and those who are beginning in the field, while also positively impacting as many people as possible with my work.

## EXPERIENCE

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### Kunumi

**Belo Horizonte, MG**

*CTO*

*2021-19-07 to present*

- I manage several teams of machine learning engineers, developing them both in hard and soft skills. I'm also responsible for hiring new engineers, manage project allocation and engineering satisfaction, as well as helping propose technical solutions for new projects, and assembling new teams.

### Kunumi

**Belo Horizonte, MG**

*Tech Lead*

*2019-01-01 to 2021-19-07*

- Team Leader, Project Manager, Data Scientist, and Machine Learning Engineer, with a broad range of activities, going from understanding the client's needs and translating them to the team, in order to deliver high-quality machine learning systems, to managing tasks using Agile development methodology, and finally bringing new promising technologies to the team.
- As a Data Scientist and Tech Lead I was able to work and manage projects in different business areas, such as credit scoring for a digital bank, risk prediction for a health insurance company and fuel optimization for a rail freight company. I also manage a project for developing new frameworks and tools in order to boost the company productivity.
- I was also engaged in managing activities company-wide, such as hiring new engineers, managing project allocation and developing internal courses to share knowledge across different teams.

### Kunumi

**Belo Horizonte, MG**

*Data Scientist*

*2016-07-19 to 2018-12-31*

- Acting as Data Scientist and Machine Learning Engineer, with a broad range of activities, from understanding the client's data and mining relevant information, to developing predictive models and delivering integrated software

### Sydle

**Belo Horizonte, MG**

*Software Engineer*

*2016-01-02 to 2016-07-18*

- Full-stack developer at a job search engine, applying technologies such as C#, .Net, AngularJS and ElasticSearch, along with HTML, JavaScript and CSS under a SCRUM methodology

## Sydle

*Intern*

**Belo Horizonte, MG**

*2015-01-19 to 2015-12-31*

- Full-stack developer at a job search engine, applying technologies such as C#, .Net, AngularJS and ElasticSearch, along with HTML, JavaScript and CSS under a SCRUM methodology

## EDUCATION

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**Universidade Federal de Minas Gerais**

*Master in Computer Science*

**Belo Horizonte, MG**

*2016-03-07 to 2018-02-28*

- Thesis: Dynamic Prediction of ICU Mortality Risk Using Domain Adaptation
- Fields of Study: Deep Learning, Artificial Intelligence, Information Retrieval, Recommender Systems

**CEFET-MG**

*B.E. Degree in Computer Engineering*

**Belo Horizonte, MG**

*2010-08-02 to 2016-01-13*

**Università degli Studi di Roma Tre**

*Exchange Student*

**Belo Horizonte, MG**

*August 2013 to July 2014*

## SOFT SKILLS

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- Communication
- Problem-solving
- Empathy
- Decision-making
- Emotional Intelligence

## HARD SKILLS

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- Time-Series analysis (modeling, feature engineering, evaluation)
- Anomaly Detection (unsupervised, semi-supervised and supervised methods)
- NLP (feature engineering + statistical methods and deep learning)
- Reinforcement Learning (Actor-critic, Deep Q-Learning)
- Deep Learning (keras, pytorch, recurrent and convolutional networks, pre-trained models)
- Statistical Learning (Gradient Boosting, classification, regression and clustering methods)
- Explainability, interpretation and causality for machine learning
- Deploy frameworks (flask, django, mlflow)
- AWS (ec2, fargate, s3, cloudwatch, athena)
- Information Retrieval (Crawling, scrapping, indexing, search engines)
- C# and .NET
- Relational Databases (MySQL, SQLServer, Oracle) and NoSQL (ElasticSearch, DynamoDB)
- Software Development (Software structure, micro-services, SCRUM, etc)

## LANGUAGES

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- Portuguese (Native)
- English (TOEFL 2013 - 96/120 and TOEFL IPT 2016 - C1)
- Italian (Italian Course at Rome - B2)