



# Francisco Simoes

## Education

- 2017–2019 **Theoretical Physics Master's program**, *Utrecht University*, Netherlands, 7.6/10.  
Approximately half of my courses were in mathematics, and half were physics courses. My thesis was in some mathematical aspects of String theory.
- 2016–2017 **Year devoted to mathematics**, *University of Porto*, Portugal, 8/10.  
Unsatisfied with the lack of mathematics in my bachelor, I decided to spend one year attending specific mathematics courses which interested me and were relevant to physics. Some of those courses are: topology, differentiable manifolds, logic, group theory, functional analysis.
- 2013–2016 **Physics Bachelor's program**, *University of Porto*, Portugal, 8/10.

## Master thesis

- title *The Monoidal Category of D-Branes in a Kazama-Suzuki model*  
supervisors Stefan Vandoren, Ana Ros Camacho  
description I showed that one can construct a category of *D*-branes in the most prolific Kazama-Suzuki model, and that there is a notion of tensor product inside this category.

## Experience

- Feb 2019 – **Student Assistant**, *Utrecht University*, Utrecht, Netherlands.  
– May 2019 Calculus and Linear Algebra.  
(Part-time job).
- April 2020 – **Intern**, *UMC - Brain Center*, Utrecht, Netherlands.  
– Aug 2020 Exploring statistical and dimensionality reduction methods in genomic research related to Amyotrophic Lateral Sclerosis.
- Sep 2020 – **Data Scientist / ML engineer**, *Orbisk*, Utrecht, Netherlands.  
– Present Data analysis and computer vision projects. The company's product helps the reduction of food-waste.

## Languages

- English **Proficient**, IELTS score in 2017: 8 out of 9.  
I have been using English as my daily language since I moved to the Netherlands in 2017, both in my professional and personal lives.
- Portuguese **Native**.

## Computer languages/skills

- Python* Using for university work since 2013. Currently using Python for my work analyzing data and creating packages for my company's data and AI teams.
- Pytorch* I know my way around the main Pytorch classes, and how to tailor and run models for custom datasets.
- Bashscript* The basics: I learn bashscript in an as-need basis, when deploying scripts or improving my Linux machine's behaviour.
- SQL* I frequently need to use SQL and write short scripts to interact with Postgres databases of my company.
- R* Used R for my internship. I know the basics only, but Python skills are quite transferable to R.
- Machine learning:* I have been learning ML using the online resources in Coursera. So far I have finished the following Coursera courses:
- Machine Learning
  - Improving Neural Networks: Hyperparameter tuning, Regularization and Optimization
  - Structuring Machine Learning Projects
  - Convolutional Neural Networks

## Other

- Volunteering* Participated in a "Healthcare Data Science Hackaton", where I worked in a team on a project for Red Cross related to the Dengue disease.

## Interests

- Philosophy* I enjoy reading and discussing about philosophical topics. I hate Nietzsche though.
- Jazz dance* I am learning swing dance - more particularly Lindy Hop.
- Racquet sports* Tennis, Squash, Table Tennis
- Water sports* Skimboarding and Surfing when in my hometown.
- Stand-up-comedy* I like to watch stand-up-comedy, and I did a few gigs myself back in Portugal.