



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.
– Present Using statistical and machine learning methods in genomic research related to Amyotrophic Lateral Sclerosis.

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 skills

Python: Using for university work since 2013. This includes one course in Python, one in Computational physics and a few smaller projects in the context of physics classes. Also for personal projects outside university. See my GitHub for a sample.

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

Octave: (MatLab clone). Self-taught.

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.