ISMAIL EZZAKI

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+212 708070221 ismail.ezzaki@edu.uca.ma
Rabat Morocco Born on December 23, 1996 (25 years) in Ouarzazate

Master Student | Freelance Developer

Bio. I am currently pursuing my final year of a master's degree in high energy physics and computational physics, I am very passionate about particle physics and improving my coding skills and developing my own applications and software. Having some experience in software development. I am interested in machine and deep learning and I am very interested in developing in Python and C++.

Research interests. particle physics , machine learning , deep learning , software development

Education

June 2021 — **Summer School ESCAPE 2021 , IN2P3, France**
Data science for astroparticle and particle physicists

May. 2021 — **Summer School on Particle Physics , The Abdus Salam International Centre for Theoretical Physics, ITALY**
Get a detailed overview of particle physics and astrophysics

December 2020 – Oct. 2018 — **Master's degree in computational physics , University Cadi Ayyad, Morocco**

- **Ranking** : 2nd in the promotion
- Extensive knowledge of physics and computer science.
- Projects :
  - Simulation of ATLAS events using the GAN neural network
  - Quantum field theory in a curved space-time and thermodynamics of black holes

Aug. 2018 – Oct. 2014 — **Bachelor in physics, University IBN ZOHR, Morocco**
Obtained fundamental knowledge in basic physics.

Formations

2021 **Deep Learning Specialization :** An online non-credit course conducted by DeepLearning.AI and offered through Coursera

2020 **Machine Learning Specialization :** An online non-credit course authorized by Stanford University and offered through Coursera

Projets

SIMULATION OF A MACH ZEHNDER INTERFEROMETER AS A CORONAGRAPH

build a simulation of a Mach Zehnder interferometer as a coronagraph for use in the observatory of Oukaimeden in Marrakech

Python | Tkinter

SIMULATION OF ATLAS EVENTS USING A NEURAL NETWORK GAN

Training a GAN neural network to produce Z → μμ events under conditions that mimic proton-proton collisions at the Large Hadron and ATLAS detector

Python | Tensorflow | KERAS

ANALYSES OF THE HIGGS BOSON IN THE FINAL STATES OF FOUR LEPTONS

Reproduce the analysis of the Higgs boson discovery using the 2011 and 2012 datasets, in four-lepton final states

C++ | ROOT

Skills

Programming languages	**Experienced :** C++ | Python **Familiar :** Java | JavaScript
Technologies	Git | Linux (Debian) | Monte Carlo Simulation | LaTeX | Microsoft office pack
Frameworks	Tensorflow | Keras | Sci-kit learn | ROOT | NodeJs
Development tools	**Intellij Idea**, **Visual Studio Code**, Eclipse, Maven, git
Soft Skills	Leadership | Teamworking | Problem Solving

Extra-curricular Activities

Apr. 2020 – March 2020 — **Volunteer work, Mohammed 6 disability association, Marrakech**

- Volunteer for two months at the Mohammed IV association for people with disabilities
- Helping children with disabilities learn to perform simple computer tasks with the help of a computer

November 2019 – February 2016 — **Member of Enactus Club, CLUB ENACTUS OUARZAZATE,**

- Successfully led a team of students to take entrepreneurial projects from conception to completion
- Developed a water filtration project for a rural area.

Languages

French	●●●●○
English	●●●●○
Arabic	●●●●●

Strengths

- Passionate
- Motivated
- Autonomous

Interests

Arts : Photography, Painting, Cinema.
Misc : Travel

References

Mohamed El kacimi
member in ATLAS collaboration
University Professor
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Mohamed Chabab
Director of the LPHEA laboratory
University Professor
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