



KIHAL HOUSSEM

PHYSICIST

MAIL ADDRESS

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EDUCATION

MASTER IN PHYSICS AND MODELLING

CERGY-PARIS UNIVERSITY
Paris Area, France
2019 - 2021

MASTER IN THEORETICAL PHYSICS

MOHAMED SEDDIK UNIVERSITY
Algeria
2017 - 2019

LICENSE DEGREE IN FUNDAMENTAL PHYSICS

FARHAT ABBES UNIVERSITYS
Setif, Algeria
2014 - 2017

COURSEWORK

- o Statistical Physics
- o Phase Transitions
- o Statistical Field Theory
- o Dynamical Systems
- o Quantum Mechanics
- o Quantum Information
- o Adv Classical Mechanics
- o Computational Physics
- o Machine Learning
- o Quantum Field Theory

PROFILE

I am a physics student at the University of Cergy-Paris with multidisciplinary experience in numerical and theoretical.

My research interests lie at the intersection of complex systems and computational physics. I am actively searching for an M2 internship .

EXPERIENCE

CERGY-PARIS UNIVERSITY | PROJECTS

M2 2020-2021 | Paris Area, France

Courses and Projects in :

- **project** : Collective behavior and Complex systems
- **course** : Dynamical System / **project** : Systems Biology Biological Oscillator
- **project** : Simulating the Vicsek Model in 3D.

M1 2019-2020 | Paris Area, France

Courses and Projects in :

- **course** : Quantum information / **project** : Quantum random walk .
- **course** : General relativity / **project** : Black Holes

MOHAMEDSEDDIK UNIVERSITY | INTERN

January 2019-July 2019 | Algeria

Master 2 internship in quantum information and quantum computing

- An introduction to field of Quantum information and Quantum computing with implementation using python.
- Quantum entangled using qubits by giving a basic presenting of the EPR paradox then Bell's inequality using quantum circuit implementation always using python.
- Transmit quantum information over quantum channels by the process known as Teleportation with implementation using python.
- Complete review of Shor's factoring algorithm, the mathematical part (Number theory) and the physics part working with the phase estimation and Quantum Fourier Transform.

SKILLS

PROGRAMMING

- Python
NumPy • Qiskit • OOP • Pandas • Matplotlib
Familiar : GitHub • SymPy
- Mathematica • Matlab • C/C++ • LaTeX

Design/Modeling

- Cinema4D • Adobe(Ae,Pr,Au,Ps,Ai) • Blender

LANGUAGES

- English • French • Arabic