

LUIS PAPIERNIK

Software developer | Physicist

luispapiernik.dev

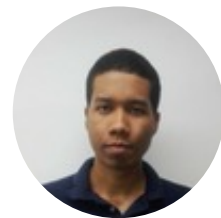
+57 312 845 46 94

luispapiernik

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lpapiernik24@gmail.com

Medellin, Colombia



Physicist passionate about technology, with more than 3 years of experience as a software developer, and a strong formal background in math, physics and programming. My specialty is backend development, but I am able to perform a wide variety of tasks. I am passionate about what I do, so I am always improving my knowledge.

RELEVANT EXPERIENCE

Backend developer

Guane Enterprises

02.2021 – 03.2022

Milla de oro. Medellin

- Microservices creation with FastAPI, Celery, Redis, RabbitMQ and PostgreSQL.
- Process automation with Python and Selenium.
- Web scrapping with Python and Selenium.
- Document scrapping with regular expressions.
- Business logic implementation with Pyspark.
- Google cloud computing: administration of cloud functions, buckets, dataproc clusters and dataproc jobs.
- Partners code refactoring.
- Participation as a speaker at the company's seminar.

Software developer

BCfort

05.2019 – 10.2020

Complejo Ruta N. Medellín

- Backend development with NodeJS, Express and mongoDB.
- AWS cloud computing: deployment of APIs on EC2 instances and S3 management.
- Unit test design and development.
- Load test design and development.
- Telegram bots development.
- Smart contract development with Solidity.
- Data analysis.

Intern

Math Decision

02.2019 – 05.2019

Balcones del Cerro. Medellin

- Unit test development (Python).
- Software design study.
- HTTP protocol study.

Freelance

Upwork

Ocasionalmente

Remote

- Backend development.
- Bots development for game items trading.

PROJECTS



Course Project

Music composition with biaxial neural network.



[See project on GitHub for details.](#)

- This project attempts to reproduce the paper "Generating Polyphonic Music Using Tied Parallel Networks" by Daniel D. Johnson.



PyCellsLib

Library for the simulation and visualization of cellular automata.



[See project on GitHub for details.](#)



Degree Work

Work developed as a requirement to obtain the degree of physicist.



[See project on GitHub for details.](#)

At the moment the github repository might be private. For access or further information please contact me.

- In this project, supervised learning algorithms are studied from the perspective of category theory, in particular, monoidal categories.



Fractals generator (In progress)

Compilation of scripts for the generation of various fractals.



[See project on GitHub for details.](#)

LANGUAGES

Natural Languages

Spanish: Native

English: EF Set C2 Proficient

Programming Languages



Python



C/C++



JavaScript



Haskell



Dart

EDUCATION

Relevant Courses (with computational approach)

Universidad de Antioquia

📅 04.2015 – 06.2022

📍 Medellín, Colombia

- Techniques for Physical Sciences I (VPython, Blender and CUDA in C).
- Numerical analysis.
- Techniques for Physical Sciences II (Artificial Intelligence).
- Computational Physics 1 and 2 (Resolution of physical problems with Python, Root framework and C++).
- Computational Astrophysics (N-body problems simulations and Simulation of fluids and galaxies with SPH methods).
- Tensor properties of matter.
- Computability (theory of computable functions).
- Number Theory (with some cryptography topics).

Physics Student

Universidad de Antioquia

📅 04.2015 – 06.2022

📍 Medellín, Colombia

GPA: 3.9/5.0

The Coding School

IBM

📅 10.2020 – 05.2021

📍 Remote

Introductory course in quantum computing.

QColombia Workshop

QWorld

📅 17.02.2022 – 07.03.2022

📍 Remote

Introductory course in quantum computing.

Awards and Scholarships

Ser pilo paga

📅 04.2015 – 06.2020

HARD SKILLS

Strong mathematical background Qiskit pandas numpy
pyspark scipy FastAPI multiprocessing Regex Scraping
Docker Unity flutter Arduino CUDA in C
Git (GitHub, Gitlab) \LaTeX UNIX Windows
Redis PostgreSQL HTML CSS Markdown
Among other things

SOFT SKILLS

Hard-working Fast-learner
Creative Great Adaptability
High stress tolerance
Good communication

EVENTS

Fourier analysis applied to music

Universidad de Antioquia

📅 14.06.2017

📍 Medellín, Colombia

The goal of the project was to obtain the sheet music of a melodic from an audio file, using the fast Fourier transform.

Modular Arithmetic and Cryptology

SPECI UdeA

📅 01.11.2018

📍 Medellín, Colombia

On classic cryptology methods and how to break them.

Grupoids: A Theory of Local and Global Symmetry

SPECI UdeA

📅 25.04.2019

📍 Medellín, Colombia

On the theory of categories in the study of symmetries.

REFERENCES



Alejandro Sanchez Yali

📞 +57 300 769 70 30

@ alejandro.sanchezy@udea.edu.co



Camilo Gómez Zapata

📞 +57 314 543 17 93

@ camilo.gomez@guane.com.co



David Tintinago Pinzon

📞 +44 794 956 42 62

@ david.tintinago-pinzon@warwick.ac.uk

For all legal purposes I certify that all the answers and information written down by me in this resume are true.