# AGUSTIN MEDINA

Student with a solid basis in programming and mathematics. Looking for a position at programming or related.



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## **SKILLS**

Communication

Team work

Fast learner

Troubleshooting

Resilient

Programming Languages: Python, C/C++, C#, R,

JavaScript, HTML, FORTRAN, Java.

Software: Wolfram Mathematica, GNU Octave, MATLAB, Maple, Arduino, ROOT (CERN), MS Office,

Tools: version control (git), Linux.



## **EDUCATION**

Aug. 2019 – Dec. 2023 (Expected) BS IN PHYSICS

León, Mexico

University of Guanajuato, Division of Science and Engineering

Aug. 2016 - Jun. 2019

San Luis de la Paz, México

**HIGH SCHOOL** 

University of Guanajuato, ENMS San Luis de la Paz

## **PROFESSIONAL PRACTICES**

Dec. 2022 - Current León, Mexico

#### International Laboratory of Elementary Particles of the University of Guanajuato

- I used my Python and R skills to preprocess and analyze data, and also used my C skills to improve the speed and efficiency of the application.
- I used libraries such as NumPy, SciPy, and Matplotlib in Python to create detailed and effective data visualizations.
- I used the C language to work with ROOT CERN and analyze a large amount of data, reducing the processing time of particle physics experiment data.

Dec. 2020 - Dec. 2021 León, Mexico

### Biotechnology Laboratory Applied to Health, University of Guanajuato

- In the IoT Applications in Environmental Variable Measurement project, I used an ESP32 as a server to collect data from connected sensors and devices and developed a custom web page to visualize the data in real-time.
- I used web programming languages such as HTML and JavaScript to create an intuitive and userfriendly graphical user interface for end-users.

Dec. 2019 - Sep. 2020

#### DCI-NET, University of Guanajuato

León, Mexico

- In the project, I used computational intelligence techniques such as neural networks, reinforcement learning, and metaheuristic algorithms to solve problems in physics, chemistry, and biomedicine.
- The metaheuristic algorithms I used include simulated annealing, tabu search, and particle swarm optimization (PSO), which allowed me to find optimal solutions to complex and high-dimensional
- I used programming tools such as Python and MATLAB to implement and optimize the algorithms, and worked with interdisciplinary teams to ensure that the results were applicable and relevant to the field of study.

## **HOBBIES**

- ✓ I play guitar.
- ✓ I enjoy reading books.
- ✓ I like going for long walk.