

Emilio Villa Cueva [INCOMPLETE cv]

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EDUCATION

- **Universidad de Guanajuato** Guanajuato, México
Bachelor in Engineering Physics; GPA: 9.79 *August 2017 - July 2021*
Important Mathematics Courses: Calculus (I,II,III,IV), Linear Algebra, Probability and Statistics, Statistical Inference, Differential Equations and Complex Variable
Important Computer Science and Electrical Engineering courses: Programming, Object Oriented Programming, Numerical Methods, Microcontroller Architecture, Statistical Learning, Selected Topics on Artificial Intelligence and Algorithms and Data Structures
Important Physics courses: Classical Mechanics, Quantum Mechanics, Electromagnetism, Thermodynamics, Statistical Mechanics

SKILLS SUMMARY

- **Programming Languages.:**
 - **Python:** Very fluent. Libraries: *Pytorch, Keras, Tensorflow, Scikit-Learn, NLTK*
 - **R:** Mostly used for statistics and traditional machine learning applications
 - **C:** Mostly used it for numerical methods for physics applications
- **Platforms:**
 - **OS:** Linux, Windows
 - **Microcontrollers:** Arduino, Texas Instruments, PIC
- **Other skills:**
 - **Goal oriented and organized:** [MISSING]
 - **Analytic and critical thinking:** [MISSING]

PROJECTS

- **Classification of aggressiveness and hate speech in social media using BERT models:** (Work in progress) [MISSING](July 2021 - present)
- **Forecasting short-term Solar Irradiance in the city of León:** [MISSING] (September 2020 - December 2020)
- **Simulating Random Walks confined in boxes under different conditions:** As part of the Soft-Matter Laboratory in DCI-UGTO [MISSING] (June 2020 - January 2021)
- **Building a low cost meteorological station at the UG-DCI campus:** [MISSING] (Jan 2020 - present)
- **Electromagnetic Braking System:** [MISSING]

HONORS AND AWARDS

- Academic Merit Award by the University of Guanajuato
Awarded to the student that graduates with the highest GPA in the class
- Yearly Academic Recognition Award by the University of Guanajuato (Years: 2018,2019,2021)
Awarded to the student with the highest GPA in the class in a given academic year
- Second Place at BeeHack Hackathon
By designing a system to monitor student wellbeing and predicting dropout at UG
- Honorable Mention at RIIA "Justicia para los desaparecidos" Hackathon
Providing solutions to clarify political disappearances in Mexico in the 60s

RESEARCH EXPERIENCE

- **Center for Research in Mathematics**
• **Research Assistant.** Working in the task of Aggressiveness and Hate Speech Detection *June 2021 - Present*

VOLUNTEER EXPERIENCE

- **Member of the UG-DCI Scientific Dissemination Group** Guanajuato, México
September 2017 - July 2018
Participated in scientific dissemination activities showing different physics and chemistry experiments at highschools in Mexico, looking to encourage the students to take interest in science
- **Volunteering in Mexico rural areas** Santa Rosa León, México
July 2016
Helped in different activities while living for two weeks in a community in the rural area of Mexico.