



# KARLO JAIR GUEVARA DIAZ

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## EDUCATION

**Universidad de Guanajuato and CIMAT, Mexico**

August 2018 - July 2023

*Bachelor's degree in Mathematics with an GPI of 8.9/10. I focused my studies on computer science and statistics.*

## WORK EXPERIENCE

**Software Developer at Implemental Systems**

April 2023 - Present

I am the lead programmer of a data analysis project. In this project, I designed the schema and an ETL pipeline for processing 10 million data. I used a REST APIS to connect to the server with the data and utilized Pandas for data analysis. I developed various applications using Power Platform, including design, development, and deployment. Created Power BI reports.

**Internship at Implemental Systems**

November 2022 - April 2023

My position was as a software developer. The most notable part was that I learned a programming language from scratch and used Power Platform to develop database management applications, I also used Power BI to create reports.

**XV Industrial Problem Solving Workshop**

June 2021 - July 2021

I was part of a team of 15 people that tackled a problem for a catalog sales company. My tasks were centered around data cleaning, analysis, and utilizing visualization tools.

**Math assistant**

2020

I taught mathematics remedial classes to a medium-sized group of high school students. After the classes, everyone increased their grades and passed.

## RELEVANT PROJECTS

**Research summer at CIMAT**

2021

Studied the problem of resource distribution in pandemics. Managed to interpret the original problem, which was based on differential equations, as a statistical model (using Markov chains) to find a solution to the problem and determine an optimal distribution policy. (I used R, Julia, and Git)

## SKILLS

**Programming languages:**

Python, R, C++, C, HTML, JavaScript, Julia, CSS

**Programming Tools & Software:**

GIT, Tensorflow, PostgreSQL, Pandas, Keras, Pytorch, Scikit-learn, Docker, Microsoft Power Platform, Virtual box, REST APIS, JupyterNotebook, CUDA

**Relevant Master Courses:**

Statistical pattern recognition (Using Python, keras, Pandas),  
Deep learning (Python, Pytorch, JupyterNotebook),  
Selected machine learning topics (Python, Keras, JupyterNotebook),  
Optimization (Using Numpy, Topics: Systems of nonlinear equations, ... ),  
Selected topics in probability and statistics or extreme values (Python and R)

**Relevant Degree Courses:**

Data Structures and Algorithms (Using C++. Topics: Sorting methods, algorithm complexity, data structures, ...),  
Computer science elements (Using C. Topics: C pointers, memory addresses, ... ),  
Selected Topic: Web programming (using HTML, CSS, SQL and JavaScript),

**Coursework:**

You can see the highlighted projects from some of these courses on my website that I made from scratch [<https://karlo-guevara.netlify.app>].