

KARLO JAIR GUEVARA DIAZ

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EDUCATION

Universidad de Guanajuato and CIMAT, Mexico

August 2018 - July 2023

Degree of mathematics, Average: 8.9/10

I focused my studies on statistics and computer scientist

- I have passed the 40% of the courses for the master's degree in computer science on CIMAT.

SKILLS

Programming languages:

Python(2 years), R (1 year), C++ (1 year), HTML (6 months), JavaScript(6 months)
Julia (year), CSS(6 months), SQL (1 year), Microsoft Power Platform (6 months)

Programming Tools & Software:

GIT, Tensorflow, Pandas, Keras, sklearn, matplotlib

WORK EXPERIENCE

Internship in Implemental Systems

November 2022-April 2023

I am doing a paid internship at Implemental Systems as a Software Developer. I have learned a new programming language and used Power Platform to develop database management applications.

RELEVANT PROJECTS

Noise cleaning using neural networks

2022

I read the paper "Beyond a Gaussian Denoiser: Residual Learning of Deep CNN for Image Denoising", implemented the neural network of the paper, created a personal model and compared the two models (using a cluster to fit it). My model had more stable comportment and faster convergence than the other model. My model uses other deep paper that I had read.

RELEVANT MASTERS CURSES

Statistical pattern recognition

Ene - Jun 2022

I applied models for the analysis and understood data such as: PCA, ISOMAP, T-SNE, local linear embedding, self organizing maps, spectral clustering, linear discriminant analysis, and neural networks (keras).

Selected Topics of Machine Learning

Ene - Jun 2022

I studied the operation of some neural networks and applied tool like data augmentation, knowledge transfer, backpropagation, and gradient descent. Also, I implemented models like: "Detection of pneumonia from X-ray images" (for this I base my model on ResNet50), "Unet for brain tumor segmentation", and GradCAM.

Selected Topics of Machine Learning II

Ago - Dic 2022

I studied, tested (using cluster), and analyzed models like: CycleGAN, Pix2pix, VAE, U-NET, transformers, and NeRF.

EXTRACURRICULAR ACTIVITIES

XV Industrial problem solving workshop at CIMAT

Ene 2022

I was in a team of 15 people, and we solved an industry problem using their data. I did the cleaning of the data and used tools for the visualization of the data. That was in R.