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arieltriana.github.io

ArielTriana

in ArielTriana

Skills —

Statistics: causal inference, A/B testing, MonteCarlo simulation, bootstrapping, bagging, bayesian inference, GMM, maximum likelihood

Data Structures & Algorithms: avl, tries, heap, kmp, graphs, dfs, bfs, disjoint sets

Mathematics: numerical optimization, gradient descent, dynamic programming

Computing: parallelization, multithreading, probabilistic programming

Software Engineering: solid, dry, agile manifesto, kanban, scrum, software architectures

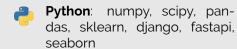
Toolbox -

Github Markdown

SQL Bootstrap CSS HTML

Docker Unix

Coding





R: dplyr, data.table, ggplot2

Misc: C, C++, Haskell, Type-Script, JavaScript, VueJS

ARIEL TRIANA

Computer Science Bachelor Student

Education

2018 - now **Bachelor in Computer Science**

University of Havana, Cuba

Computer Science student at the University of Havana, with approximate graduation date in December 2022. Working on the development of the diploma thesis on 3D reconstruction of skin lesions through depth images.

Projects

2022 Battle Sim Code on Github

Software implemented in Python to simulate war battles between armies. A DSL was designed, in addition an expert system for agents and different metaheuristics for the generation of height maps were used.

2022 ReTex Code on Github

A text-based information retrieval system. ReTex is modeled using the vector model with query caching. It is implemented in

Python and VueJS.

2021 **NetSim** Code on Github

A network simulator that implements the OSI model. The school project of the subject Computer Networks. It is implemented in

Python.

2021 Cine + Code on Github

Final project of Software Engineering. Official website of a cinema, with selection of seats, online payment and user profile.

2020 ttsh Code on Github

Shell implementation in C language.

2019 Wall-E Code on Github

A robot in a simulated environment, controlled using symbolic language MATLAN. Implemented in C#.

Research

• Use of neural networks, stochastic gradient descent and random sampling for the numerical solution of Differential Equations

Solving ordinary differential equations and systems of differential equations using Multilayer Perceptron, using random sampling and stochastic gradient descent. The proposed method constitutes a good performance numerical alternative to traditional methods such as Euler or Runge-Kutta.

Other

· Languages: Spanish (native), English (fluent)