Matias Agelvis

magelvisdoz@gmail.com • matiasagelvis.com • +33 7 60 91 51 27
Github: MatiasAgelvis • Stackoverflow: Matias Agelvis

Summary

Physicist specialized in complex systems, with experience in mathematical optimization as well as modeling and simulation of real world phenomena. Highly skilled software developer, proficient in Python, Minizinc, C++ and SQL, with proven ability to work in technical and data-intensive problems, able to reformulate complex problems into more tractable solutions, always rigorous and scientific when approaching new quantitative problems. Very eager to keep expanding his knowledge and skills in software development, committed to staying current with the latest trends and technologies in mathematical optimization.

Programming Experience

Python • 2+ years of everyday use, experience with Pandas, Numpy, Jupyter, Google's OR-TOOLS, Keras and Tensorflow.

MiniZinc • Experience doing constraint optimization, modeling discrete systems, and converting models from CP to MIP.

C++ • Four years of experience, used it to create my thesis, a compiler, a virtual machine, and an assembler for a course. Also wrote OmegaInt, which is an easy to use arbitrarily sized Int implementation for C++.

Gnuplot • Able to make all sorts of plots, considerable experience in batch plotting and interfacing with LaTeX

JavaScript • Over one year of experience developing the Kumigi avatar designer app and the browser extension Stellaid to find peer adjusted course ratings in Coursera.

Bash • Avid user of Bash and Zsh in Linux and MacOS.

Also knowledgeable of SQL (Impala), React, C, Ruby, SML, Netlogo, LaTeX

Professional Experience

Front End Developer   **03/2022 – 11/2022**
RENYT Tech | Remote, Venezuela
- Created a blog from scratch, including the design and implementation of the layout and visual elements of the blog, using path dependent color schemes and other innovative features.
- Ensured that the blog was responsive, and that the UI was fully functional on desktops, tablets, and smartphones.
- Tested all blog components with Storybook to ensure compatibility and fixed any issues that arose.
- Continuously monitored the website performance and made necessary changes to improve it.

Technologies used: Next.js | Chakra | React.js | TypeScript

Research Assistant   **05/2017 – 07/2018**
Universidad de los Andes, Nonlinear Dynamics Group of the | Merida, Venezuela
- Assisted a professor in conducting academic research, including the execution of research projects, conducting literature reviews, collecting and analyzing data, and preparing research papers.

Education

BSc. Physics   **2018**
Thesis: Suppression of Escape in Dynamical Networks
Universidad de los Andes (Merida, Venezuela)
Graduated with Cum Laude Honors

Courses

TensorFlow 2 for Deep Learning **2021**
    Getting started with TensorFlow 2
    Customising your models with TensorFlow 2
    Probabilistic Deep Learning with TensorFlow 2

Modern Big Data Analysis with SQL **2021**
    Foundations for Big Data Analysis with SQL
    Analyzing Big Data with SQL
    Managing Big Data in Clusters and Cloud Storage

Investment Management with Python and Machine Learning **2021**
    Introduction to Portfolio Construction and Analysis with Python
    Advanced Portfolio Construction and Analysis with Python
    Python and Machine Learning for Asset Management
    Python and Machine-Learning for Asset Management with Alternative Data Sets

Algorithms **2019**
    Divide and Conquer, Sorting and Searching, and Randomized Algorithms
    Graph Search, Shortest Paths, and Data Structures
    Greedy Algorithms, Minimum Spanning Trees, and Dynamic Programming
    Shortest Paths Revisited, NP-Complete Problems and What To Do About Them

A full list of followed coursed and certifications is available in my online resume.

Language Skills

Spanish	Native Speaker
English	Fluent (Score 100/120 in TOEFL).
French	Basic

References

Available upon request