

# Valerio Cristofori

Doctor of computer engineering



Site



GitHub



LinkedIn



cristoforivalerio@gmail.com



3392462956



## ABOUT ME

Hi, I am Valerio Cristofori I was born in Rome on 12<sup>th</sup> August 1998. I have always been passionate about the IT sector and engineering.

I am therefore very determined to make a career in these sectors, driven by the desire to know and to improve. In particular, I am now interested in the world of **AI**, **Big Data analysis** and **Cloud Computing**.

## EDUCATION

**MASTER'S DEGREE IN COMPUTER ENGINEERING** | DATA SCIENCE AND ENGINEERING  
Performing | University of Tor Vergata, Roma

**BACHELOR'S DEGREE IN COMPUTER ENGINEERING**  
September 2017 - October 2020 | University of Tor Vergata, Roma  
Mark: 110/110

**SCIENTIFIC LYCEUM DIPLOMA**  
September 2012 - August 2017 | L. Edoardo Amaldi, Roma

## PROJECTS

**PERSISTENT KEY-VALUE STORAGE** | Go  
2021, GitHub repository

- The aim of the project is to create a distributed storage system for edge computing. The application was conceived as a persistent, replicated and key-value storage service, provided by edge nodes that communicate with each other. The values are the result of the temperatures measured by a set of sensors. Clients can interact with edge nodes through 4 RPC calls.

**PARALLEL PRODUCT SPARSE MATRIX PER VECTOR: SMPV** | C, CUDA  
2021, GitHub repository

- The goal is to create a parallel computing core by differentiating 2 types of parallelization. The first is based on an implementation of the multithreading concept on shared memory systems: OpenMP. The second is CUDA, which is an API that allows the use of GPU for parallel computing (general-purpose computing on GPU).

**LENDING CLUB DATA CREDIT RISK ANALYSIS - PREDICTION OF DEFAULTS** | PYTHON  
2022, GitHub repository

- Lending Club is the largest online loan market. The purpose of the analysis is to use machine learning models to model credit risk as a binary classification problem. Loan credit loss is the amount of money lost by the lender when the borrower refuses to pay.

**STOCKS TIME SERIES ANALYSIS: CRUDE OIL AND AMAZON** | R  
2022

- The target of the analysis is to study the characteristics of the series, perform transformations for a more accurate analysis and, finally, use historical data to predict future prices of stocks, using model as ARIMA, Ornstein-Uhlenbeck.

**ANALYSIS OF THE DATASET OF ANTI COVID-19 VACCINATIONS** | JAVA  
2021, GitHub repository

- Analysis of the dataset of anti Covid-19 vaccinations with Spark: calculate the average number of vaccinations that has been carried out daily in a generic vaccination center in that region and during that month; determine the top-5 regions for which the highest number of vaccinations; considering all the categories and, using a clustering algorithm, classify the areas into K clusters considering for each area the estimate of the percentage of vaccinated population.

**ANALYSIS OF DATASET OF AUTOMATIC IDENTIFICATION SYSTEM DEVICES** | JAVA  
2021, GitHub repository

- The aim of the project is to answer some queries regarding a dataset relating to data coming from Automatic Identification System (AIS) devices, using the Apache Flink framework.

## IT SKILLS

### PROGRAMMING

**Proficient:**  
Python • Java • C • SQL • R

**Experienced:**  
LaTeX • Go • Shell • C++

**Familiar:**  
Assembly

### LIBRARIES/Frameworks

Tensor flow • Scikit-learn • Spark •  
Flink • MapReduce • CUDA •  
MPI/OpenMP • Python libs • Weka

### TOOLS/PLATFORMS

Office • Git • AWS • VirtualBox •  
Kubernetes • Terraform • Docker •  
DockerCompose • Travis • Sonar  
Cloud • Jupyter

### EXTRA

**Good foundation on:**  
OS • Cybersecurity • Software  
engineering

## SOFT SKILLS

Independence • Determination to  
achieve goals •  
Desire to learn and grow •  
Self-confidence • Enterprising •  
Problem solving • Leadership •  
Teamwork • Adaptability • Ability to  
plan and organize • Resistance to  
stress

## LANGUAGES

**Native:**  
Italian

**Independent:**  
English

**Base:**  
Spanish

## INTERESTS

### HOBBY

Gym • Swimming • Gaming •  
Coding • Cooking • Linux passion •  
Riding motorbike