Antonio Cruciani

Curriculum Vitae

Contact Information

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GitHub, github.com/Antonio-Cruciani.

Education

2017–2020   **Student**, *University of Rome* , Tor Vergata, *Master's degree*.
Computer Science.
<u>Final mark</u> : 110/110 Cum Laude
Supervisor: [Prof. Francesco Pasquale](#)
<u>Thesis title</u>:Dynamic Random Graphs and unstructured P2P networks, analysis of two models inspired by the Bitcoin network.
Available at the following [link](#)

2011–2017   **Student**, *University of Rome* , Tor Vergata, *Bachelor's degree*.
Computer Science.
<u>Final mark</u> : 92/110
Supervisor: [Prof.Giorgio Gambosi.](#)
<u>Thesis title</u>: Efficient learning methods for playlist prediction.

2006–2011   **High School** , *ITIS Montani*, Fermo, .
Qualified Industrial Technician specialization: Information and Technology

Experience

Research

February
Now
2020
Big Data and Information Retrieval, Big Data Analytics Lab at Fondazione Ugo Bordoni , Working on MinHash Signature Estimation Algorithms for Graph Clustering, Centrality, Ranking and delta encodings .
Supervisor: Giambattista Amati

University

September
2019
Talk, *10th Italian Information Retrieval Workshop (IIR-2019)*, Padua.
I presented the joint project with Fondazione Ugo Bordoni about index compression techniques.

June 2019
Seminar, University of Rome Tor Vergata, Talk on FPT Algorithms.
I held a seminar about Iterative Compression technique for NP-Hard problems on Graphs.

October 2018
June 2019
Teaching Assistant, University of Rome Tor Vergata, Prof. Miriam Di Ianni.
Computability and Computational Complexity Theory
List of Exercises (IT) proposed by me during my lessons available at the following link

December
2017 June
2018
Teaching Assistant, University of Rome Tor Vergata, Prof. Gianluca Rossi .
Computer programming with laboratory

Work

October 2015
January 2016
Developer, WeDot, Roma.
Software developer for Microsoft platforms, .Net , C# ,Windows Server.

June 2010
September
2010
Intern, New System, Falerone,Fermo,Marche.
Web developer and sysadmin

Publications

Conferences and Workshops

2019
A. Cruciani, D. Pasquini, G. Amati, and P. Vocca, About Graph Index Compression Techniques, Proceedings of the 10th Italian Information Retrieval Workshop (IIR-2019), Padua, Italy, September 16-18, 2019, CEUR-WS.org/Vol-2441/paper23.pdf.

Advanced Courses

2019
Semidefinite Programming and Discrete Optimization. University of Rome: "Tor Vergata". Ph.D. (Computer Science, Control and Geoinformation) course held by Prof. Angelika Wiegele.

2019
Natural Distributed Algorithms. University of Rome: "Tor Vergata". Course held by Dr. Emanuele Natale.

2019
Algorithms and computational models for large-scale data analysis. University of Rome: "La Sapienza". Ph.D. (Data Science) course held by Silvio Lattanzi.

Certifications

2017 [MOOC] Approximation Algorithms by École Normale Supérieure

Massive open online course by ENS on approximation algorithm. Particularly emphasizes algorithms that can be designed using linear programming and semidefinite programming.

2017 Machine Learning Specialization by Washington University

Online specialization on machine learning covering: foundations of ML, regression, classification, clustering and retrieval. To see the certification click on the name of specialization

2017 Machine Learning By Stanford University

Online course on machine learning, topics: supervised learning, unsupervised learning. To see the certification click on the name of specialization

2017 Common European Framework (CEFR) B1

Programming skills

Basic OWL, SPARQL,FORTRAN,COBOL,LISP

Intermediate GO,MATLAB,JAVASCRIPT,R,ASP.NET,JAVA

Advanced PYTHON,C,C++,C#,SQL,PHP

Frameworks Apache Spark

Languages

Italian **Mother tongue**

English **Upper Intermediate**

I have been attending an English school, since February 2020 (My English School). I will take an IELTS Academic certification as soon as the covid lockdown ends.

Interests

- Computational Complexity
- Network Analysis
- Stochastic Processes
- Algorithms
- Machine Learning
- Property Testing

- Distributed Computing
- Spectral Graph Theory
- Dynamic Graphs
- Algorithmic game theory
- Information retrieval

Antonio Cruciani July 25, 2020

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