Indaco Biazzo

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Objective

I have always been fascinated by work that hold together the complexity of the problems addressed as well as the potential profound impact on society. The integration of different domains, fields, platforms has always been for me a source of intellectual and working stimulation. In the era of information society, due of the high level of jobs specialization, the integration of informations and data represents a huge opportunity for economic and social development. In this context big data analysis tools and data visualization techniques are key elements to reach these objectives.

Summary

I'm a Ph.D graduated in physics. I have strong analytical and mathematical modelling skills. With several years of experience in big data and complex systems domains, I managed both big data computational analysis problems and data visualization and web presentation of results.

Experience

Post-Doc, Università La Sapienza - Physics Dip. / ISI Foundation
Rome-Turin, Italy — 2017 - Today

Researcher, ISI Foundation
Turin, Italy — 2014 - 2016

I'm working in the Citizen Science & Smart Cities Lab of Prof. Vittorio Loreto at ISI. I'm interested in urban mobility studies, city information lab, data visualization and social systems using complex systems tools and analysis approach.
Accomplishments
- Ideation, creation and implementation of citychrone.org platform.
- Urban mobility studies.
- Implementation of CityChroneTable.
- Gamification experience and citizen science (kreyon project).

Researcher, Politecnico di Torino
Torino, Italy — 2013-2014

I worked in the group (CMP) of Prof. Riccardo Zecchina.
I focused on applications of new algorithms, borrowed from statistical physics of complex systems, to optimization problems and quantum physics.
Accomplishments
- Innovative use of message passing algorithms to quantum physics problems.
- Comparison studies between message passing Algorithms and linear programming technique in optimization problems.

Education

Politecnico di Torino

Ph.D. student, Physics Department, Politecnico di Torino; Supervisor: R. Zecchina. Title of the Ph.D.'s thesis: "Cavity algorithms under global constraints: classical and quantum problems."

Università la Sapienza di Roma
Master in Physics — 2009

Thesis supervised by Prof. Giorgio Parisi and Dott. Francesco Zamponi.
Final mark 110/110 e lode.

Ecole Normale Supérieure de Paris
Thesis — 2009

Preparation of the Master's thesis, supervised by Dr. Francesco Zamponi.

Università la Sapienza di Roma
Bachelor in Physics — 2007

Bachelor's thesis supervised by Prof. Luciano Pietronero and Dott. Andrea Gabrielli.
Final mark 109/110.

University of Geneva
Erasmus — 2005-2006

High school diploma
Liceo Scientifico "Talete" in Roma, Italy. 2002

Skills

→ Expert user of Unix based operating systems (Linux and Mac Os X).
→ Advanced knowledge of C++, Python and nodeJS/javascript.
→ Good knowledge of mongodb.
→ Good knowledge of web developing, web based map libraries and meteor platform.

Languages

[Italian – native language]
[English – Good knowledge] IELTS exam score 6 (2013)
[French – Good knowledge]

References

Available upon request.

Selected publications

I. Biazzo, F. Caltagirone, G. Parisi, F. Zamponi, **Theory of amorphous packings of binary mixtures of hard spheres**, Physical review letters 102 (2009)
I. Biazzo, A. Braunstein, R. Zecchina, **Performance of a cavity-method-based algorithm for the prize-collecting Steiner tree problem on graphs** Physical Review E 86 (2), 026706 (2012)