Postdoctoral position in machine learning

Prof. José Bento is looking for a postdoctoral researcher to join his group in Boston College starting in the Fall of 2017. Start date is flexible. The position will be funded for at least two years.

The ideal applicant should

- have a strong background in mathematics and statistics
- be an expert in at least one programming language
- have a strong publication record
- be proficient in English and work well in a team environment

The position is not restricted to researchers from the field of Computer Science. Researchers from Physics, Applied Math, and Engineering, are strongly encouraged to apply as well.

The researcher will have considerable freedom to choose his/her research topic within the following topics.

- Develop machine learning algorithms to help understand the emergence of bacterial resistance from the interaction of host, immune system, and antibiotic. Apart from developing new algorithms, he/she will also interact with biologists to test them on real data. Preferably he/she will develop these algorithms in conjunction with theoretical guarantees under relevant idealized scenarios.

- Develop general purpose large scale distributed optimization algorithms that will expand the applicability of several existing or novel machine learning algorithms. Study their convergence properties under synchronous and asynchronous message passing settings. Implement and test these algorithms over GPU, multiple-cores and/or multiple machines.

- Develop algorithms to compute similarity measures between complex objects such has graphs and trajectories. These algorithms should scale, be able to deal with very large inputs and be robust. Study their mathematical properties. Apply these measures to solve problems in computer vision, biology, and social network analysis.

To apply, send a CV to postdoc@jbento.info. Applicants are not required but are encouraged to include a 1000 words proposal explaining how they will use their research expertise on the above topics, or closely related ones.

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