Postdoctoral Fellowship in High Performance Computing (University of São Paulo, Brazil)

Description

We are currently seeking a highly motivated and skilled Postdoctoral researcher to join our team and contribute to the cutting-edge research line titled "A Transparent and Parsimonious Design of Experiments Approach to Autotuning."This project aims to address the challenges of optimizing programs for various High-Performance Computing (HPC) architectures by developing an advanced Design of Experiments (DoE) methodology. The ideal candidate should possess a strong background in math, statistics, Design of Experiments, and experience in High-Performance Computing applications.

As a part of our team, the researcher will be involved in tackling two main research challenges: (1) Developing and exploring sampling techniques for optimal design construction in high-dimensional search spaces and (2) Leveraging user input on the Design of Experiments based autotuning to create a transparent approach that directs optimization and search space exploration based on user feedback. This is an exciting opportunity for candidates who are passionate about performance optimization and modeling in HPC and wish to contribute to a groundbreaking research project. If you believe you have the necessary skills and experience, we encourage you to apply for this position and help us revolutionize the field of autotuning.

The position is open to candidates from all nationalities.

Requirements

- Doctoral degree in Computational Science or a related field.

- A strong background in Mathematics and Statistics.

- Knowledge on Design of Experiments.

- Experience with High-Performance Computing applications.

- Fluency in English.

What we offer

We offer a competitive FAPESP fellowship (R$ 9047.40), which includes a generous personal budget for travel and other expenses. The candidate will work be supervised by Prof. Dr. Alfredo Goldman.

The researcher will be positioned in the São Paulo city, which is a lively and multicultural metropolis. The Department of Computer Science of the University of São Paulo has a vibrant environment that allows ample opportunity for professional growing, independent research, and collaboration. The University of São Paulo is one of the best Universities of Latin America and very well positioned in international rankings.

The position is available immediately after the selection is finished. The appointment is initially for one year and can be renewed for up to 4 years depending on performance and interest.

How to Apply

To apply for the position, sent the following documents in PDF format by email to isabelaleman@ime.usp.br:

- A cover letter explaining why do you want the job and why do you think you are a good fit for the project.

- Curricular Summary in the format requested by FAPESP.
  Instructions for the elaboration of a Curricular Summary can be found here (in English): https://fapesp.br/6351/instructions-for-the-elaboration-of-a-curricular-summary.

- Two letters of recommendation.

Application Deadline

The application deadline is 30 July 2023. The selection is expected to be finished around a month after the application deadline.