

SCHOOL OF COMPUTER & COMMUNICATION SCIENCES

Data-Intensive Applications and Systems Laboratory (DIAS)



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

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Postdoctoral Researcher in the area of data management systems and new hardware platforms

The Data-Intensive Applications and Systems laboratory at the Ecole Polytechnique Federale de Lausanne (EPFL) seeks a driven and committed post-doctoral researcher in the areas of just-in-time query processing, parallel and distributed data management, and data management systems on emerging hardware. The interests of the lab are very broad, and the selected candidate can define a project within a large variety of potential directions.

Research Group

Despite recent technological advances both in the data management and in computer architecture domains, our ability to analyze data still falls behind the unstoppable data collection rates. Data-intensive applications are increasingly more demanding in sophisticated algorithms to store, manage, and interpret data. To meet the challenges, database software needs to communicate efficiently both with the application layer and with the underlying hardware platforms, and deliver seamless computational and data management support. Research in the DIAS lab addresses both aspects of the challenge: we adapt data management technology to computer architecture trends by designing data manipulation techniques that exploit optimally the underlying hardware and I/O devices, and we enable new discoveries in scientific domains through automating physical database design and revolutionizing exploration algorithms in very large data repositories. We are one of the pioneers in just-in-time query engines which support analytics on raw data and are currently working on data cleaning and query optimization for heterogeneous distributed data.

Research Project

The selected candidate will be free to define his/her own research agenda within a large variety of potential data management projects in the lab, as described in the lab's website. For more information see <https://dias.epfl.ch/research>.

Duties

Post-docs are expected to carry out their research with high standards, supervise and collaborate with other postdocs and graduate students who work with them in their projects, and optionally contribute to teaching, especially if they are interested in an academic career.

Profile

We are looking for a recent graduate with a Ph.D. in Computer Science or relevant areas, who is interested in database systems. Candidates must have a strong desire and proven ability to invent, build, and publish their work. A strong publication record and hands-on experience in system development are important.

We offer

Salary and social benefits are extremely competitive.

Term of employment

Fixed-term (CDD)

Work rate

100%

Duration

The position is initially for one year (renewable for up to four years).

Contact

Interested parties should send an application to Dimitra Tsaoussis (dimitra.tsaoussis@epfl.ch) including a CV, a research statement, and the names of at least three references. For inquiries regarding the research aspects of the position, contact Prof. Ailamaki (anastasia.ailamaki@epfl.ch).