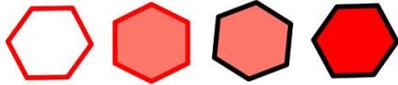


MARVEL



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

TWO OPEN POSITIONS - SOFTWARE SCIENTISTS/ENGINEERS

Two open positions for software scientists/engineers are available at EPFL (Lausanne, Switzerland) in the [MARVEL NCCR](#), a new Center for "Computational Design and Discovery of Novel Materials", directed by Prof. Nicola Marzari and involving 25 principal investigators (more information is given in the link above).

Excellent candidates are sought with experience in the development of complex software architectures to support the development and deployment of AiiDA (Automated Interactive Infrastructure and Database for Atomistic simulations, www.aida.net), a complex framework that acts as a flexible and scalable infrastructure for high-throughput computational materials science. AiiDA is the main materials' informatics infrastructure underpinning the efforts of the Center; the software engineers would work with a team of PhDs/postdocs contributing to the AiiDA project, and a web engineer dedicated to the portal for data sharing and dissemination.

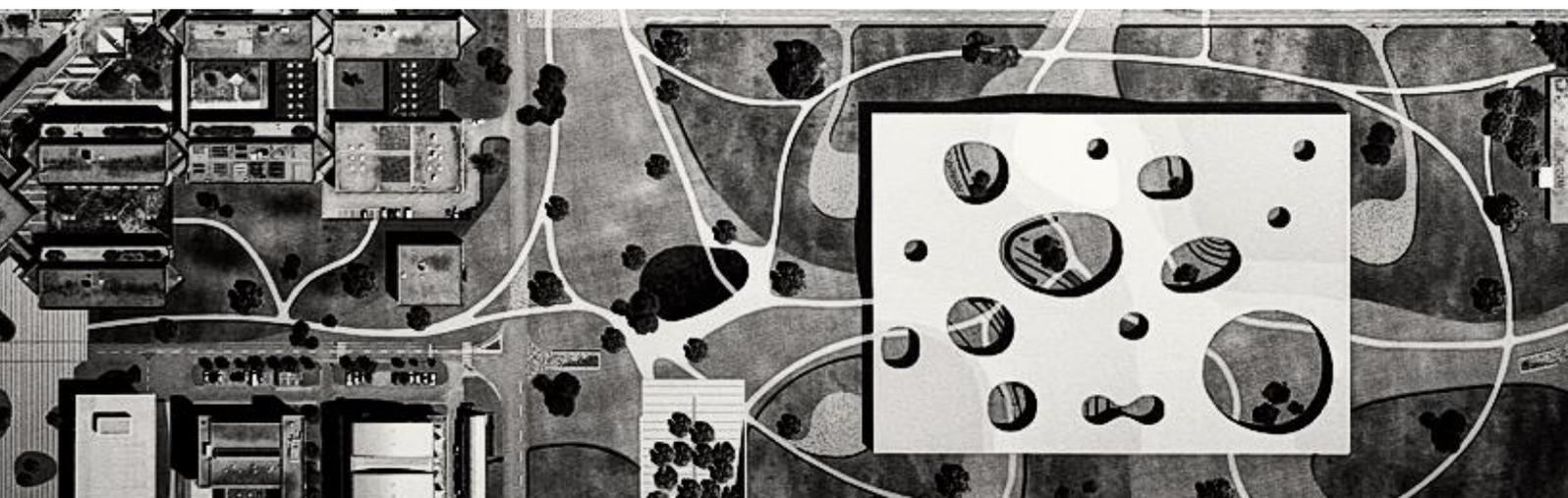
Major duties and responsibilities:

Maintain and develop the main AiiDA Python infrastructure, including:

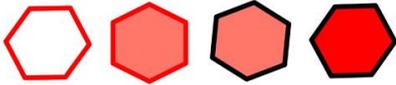
- database storage, query efficiency, and scalability
- plugins for community codes and scientific workflows
- remote resource management
- REST APIs and GUI front-ends
- communicate with users for support, feedback, and strategic development

Skills and experience:

- managing large codes/projects in a team (revision control systems, issue trackers, unit test and continuous integration frameworks, ...)
- database systems (SQL/NoSQL, database triggers, transactions, ...) and handling large amounts of data
- at least one object-oriented programming language; Python obviously a plus
- creating/managing high traffic-load web services; web analytics



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Further optional skills:

- web (HTML5, JavaScript, AJAX, jQuery) and app design

A scientific background (e.g. physical or engineering sciences) is welcome, but not required. For interested applicants, scientific research challenges can also be incorporated in the effort.

Typical candidates will be independent, motivated and passionate, and have a MSc in computer science (or comparable skills and experience), while a PhD in science or engineering would be appropriate for research-oriented applicants. Preference will be given to candidates with previous experience in similar subjects.

The environment:

The position will be hosted in the Laboratory for Theory and Simulation of Materials, led by Prof Nicola Marzari (see <http://theosrv1.epfl.ch>). EPFL offers a thriving intellectual environment, outstanding computational resources and facilities, and a very lively and active community. It is located in Lausanne, on the shores of Lake Geneva and in close proximity to the Swiss and French Alps.

Applications:

Candidates should submit a full CV, including contacts for at least two references, and a cover letter of intent to giovanni.pizzi@epfl.ch and nicola.marzari@epfl.ch, with “MARVEL Software Engineer” in the subject line (PDF attachments only). For best consideration applications should be submitted by **Jan 15 2015**, but the positions will remain open until filled. Shortlisted candidates will be contacted individually for interviews, usually over Skype videoconferencing.

Duration of the contract: 1-year, and renewable up to 5 years. Salaries for a MSc would start typically at ~75,000 CHF.

