

PhD Scholarship in Hardware and OS Support for Future Smart Data Center Disaggregation

Applications are invited for a fully funded PhD studentship (home or overseas) in the area of secure cloud systems, under the supervision of Dr. Lluís Vilanova [1], a faculty member of the world-leading “Large Scale and Distributed Systems” (LSDS) group [2] and co-director of the “Cloud, Data and Exascale Computing Hub” at Imperial-X [3].

[1] <https://www.imperial.ac.uk/people/vilanova>

[2] <https://lsds.doc.ic.ac.uk>

[3] <https://ix.imperial.ac.uk/research-area/cloud-and-big-data-computing>

The goal of this project is to build a forward-looking, smart data center-scale infrastructure using bleeding-edge smart/programmable components, as well as proposing new hardware and operating system abstractions to push the security and efficiency guarantees of data centers further into the future.

To apply for this position, you will need to have solid programming and analytical skills and a strong background in at least one of the following areas:

- Operating systems
- Computer architecture (hardware-software co-design preferred)
- Development in programmable accelerators
- Security (especially regarding formal methods)

Skills in any of the following areas will also be considered in addition to those described above:

- Machine learning
- Resource management (metering, placement, scheduling)
- Live state migration

Applicants are expected to have a First Class or Distinction Masters level degree, or equivalent, in a relevant scientific or technical discipline, such as computer science or mathematics. Applicants must be fluent in spoken and written English.

The position is fully funded, covering tuition fees, travel funds and a stipend/bursary. The position is available to home and overseas students.

How to apply

To apply for this position, please follow the application guidelines at: <http://www.imperial.ac.uk/computing/prospective-students/courses/phd/phd-application-guidelines/>

In the application form, please write “SDCD” in the “Proposed Research Topic” field, and “Lluís Vilanova” in the “Proposed Research Supervisor” field.

Early applications are encouraged. Informal inquiries about this position are also encouraged and can be directed to Lluís Vilanova <vilanova@imperial.ac.uk>. This position will be based at the South Kensington campus in central London. Applicants are advised to visit <http://www.doc.ic.ac.uk/~lvilanov/opportunities/phd/> for information in applying for a PhD position

with Dr. Lluís Vilanova, as well as for links to more general information on becoming a PhD student in the Department of Computing.

We are committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Two Ticks Employer, and are working in partnership with GIRES to promote respect for trans people. We encourage applicants from underrepresented backgrounds to apply.