Architecture, Compilers, Parallel Computing And Systems Phd Qualifying Examination

This page and its links are for the Spring 2019 qualifying exam. The systems track will not be offered starting Spring 2019 and has been removed. The reading lists for Spring 2019 for the architecture, compilers, and parallel programming sub-areas are the same as for the previous semester.

All students taking the qualifying exam in this area should subscribe to the architecture@cs.illinois.edu mailing list to ensure they receive all qual related announcements from the area.

This area has three different tracks: architecture, compilers, and parallel programming. Each track has a core and a specialization reading list.

- Architecture core and specialization reading list
- Compilers core and specialization reading list
- Parallel programming core and specialization reading list

Students in this area may also choose one of the tracks in the Programming Languages, Formal Systems and Software Engineering area for a non-specialization track.

Preparation for the exam

You are asked to:

- Read the following literature: 1) the core and specialization list for your chosen track, and 2) the core list for two additional tracks (one of these tracks may be from the programming languages, formal methods, and software engineering area).
- Prepare a presentation of one paper (selected by area faculty) from the core or specialization list of your chosen track.

Papers selected for Qual presentations

**Architecture track:** Kevin Lim, Parthasarathy Ranganathan, Jichuan Chang, Chandrakant Patel, Trevor Mudge, Steven Reinhardt. Understanding and Designing New Server Architectures for Emerging Warehouse-Computing Environments. ISCA ’08 Proceedings of the 35th Annual International Symposium on Computer Architecture, Pages 315-326. [PDF]


Exam process

The exam is oral and lasts 90 minutes. You will start by presenting the paper that was selected. The faculty on your committee will ask you about the whole reading list, not necessarily specifically about the paper you present.