NOTE

Paper selection and reading

Note: Paper selection

- Reading list:
    - A list of papers will be provided from the top conferences in this area
    - Top systems conferences: ASPLOS, NSDI, OSDI, USENIX ATC/FAST, EuroSys, and SOSP
    - Students can also nominate their papers (with due permission from the instructor)
- Paper assignment:
    - FCFS bidding process
    - Two students per paper/topic *(see the list)*
    - Please indicate your preference by semester's 1st week

Tentative topics

Tentative topics
Distributed systems
Data analytics/ML systems
Operating systems and virtualization
Storage systems
Networked systems
Systems security
Multicores/accelerators, parallelism, and synchronization
Systems reliability
…

Guidelines for paper reading

- Follow Keshav's three-pass approach (see references)
    - First pass: Get the general idea (5-10 minutes)
        - Read the abstract, introduction, conclusions
        - Check section headings, and references
    - Second pass: Grasp the paper's content (1 hour)
        - Read the full paper, ignore proofs/details
        - Carefully read the figures, identify key points
        - Mark important references
    - Third pass: Understand the paper in depth (4-5 hours)
        - Try to understand everything and reconstruct the approach
        - Be critical, challenge assumptions, validate the state-of-the-art
        - Possible generate your own ideas

References

- How to read a paper
  - S. Keshav: How to Read a Paper
    - http://ccr.sigcomm.org/online/files/p83-keshavA.pdf
  - Philip Fong: How to Read a CS Research Paper
    - http://www2.cs.uregina.ca/~pwlfong/CS499/reading-paper.pdf