

## Recitation 20 — Raft

### The basics of Raft

*There is really no reference better than the two links we provide along with the recitation assignment:*

- An [introduction](#) to distributed consensus
- A [visualization](#) of Raft

After watching the animations in those links, and reading the paper, you should be able to answer the following:

- Leader election
  - Each candidate votes for itself and broadcasts its request; what is in the request?
  - For a machine to respond to a vote, what needs to happen?
  - How does a machine win an election?
  - What happens if no one wins?
  - How does a leader continue being a leader?
- Failures
  - What happens when a leader fails?
  - What happens when a follower fails?
  - What happens when a candidate fails?
  - What happens when there is a network partition?

To test your understanding here, check out Problem 4 of the [2019 exam](#) ([solutions](#)).

### Discussion

- What does it mean to be an “understandable” consensus algorithm? Understanding by whom?
- *Is* Raft understandable?
- Is understandability a worthwhile design goal?