Many of today’s computing services have shifted to cloud-based infrastructure, forcing companies that offer them to focus extensive research effort on developing storage architectures that can meet their applications’ performance and scalability goals.

In this seminar, we will review academic papers in top-tier venues that originated from some of these companies, such as Amazon, Google, Facebook, and Microsoft, and changed the storage landscape. Topics will include caching, failure recovery, datacenter organization, distributed file systems and databases, and messaging services. Our goal will be to understand each company’s motivation for its unique architecture, how the design is specially tailored for its own use cases, and the impact that it made.

The list of papers will be published shortly before the beginning of the semester.

The course will combine lectures by the instructor with independent reading in a seminar format. The students will read important papers in the field and will present them in class along with their background and follow-up work or adoption.

- Attendance is mandatory. Classes will be held according to the Technion’s instructions *(physical/online/hybrid)* at the start of the semester.
- Students will be expected to familiarize themselves with each week’s paper prior to class.
- *Undergraduate* students will present papers in pairs. *Graduate* students will present one paper each.
- There is no exam.

Please email the following information to Gala Yadgar:

- Name and ID.
- Whether you are a graduate or undergraduate student (which semester).
- Related courses you took.
- Other relevant information such as related projects, industry experience, etc.