

# Chapter 1 - Reliable, Scalable, and Maintainable Applications

# Think about data systems

## What do we think of?

- Data-intensive v.s compute-intensive
  - Volume, Velocity, and Complexity
- Building blocks
  - databases, caches, search indexes, stream/batch processing
- Requirements (engineering-wise)
  - Functional - what to do, like allowing data to be stored, retrieved, searched, and processing in various ways
  - Non-Functional - general properties like security, reliability, compliance, scalability, compatibility, and maintainability