

# Automata Theory Lecture 2

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August 25, 2021

## 1 Deterministic Finite Automata

- Finite automata, single-directional
- $Q$  = set of states (set)
- $\Sigma = \text{alphabet}(\text{allowed\_input})$
- $\delta = \text{transitions}(Q * \Sigma \rightarrow Q)$
- $F(0)$  = start state
- $F$  = set of accepted states
- Arrow going to a state from nothing is defined as the start state

$L(M) = A$  — Language of machine  $M$  recognizes  $A$