Address, data, and control buses facilitate communication between components.

The von Neumann bottleneck limits processing speed due to sequential instruction execution.

The concept of computer architecture, distinguishing between fixed-program computers and stored-program computers. It then focuses on the von Neumann architecture as a fundamental model for stored-program computers.

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Basic Structure: Von Neumann Architecture

The von Neumann architecture comprises three main units: the central processing unit (CPU), the main memory unit, and input/output devices. The CPU is the core processing component, the main memory stores data and instructions, and input/output devices facilitate interaction with the external world.