

Finding the Essence
with

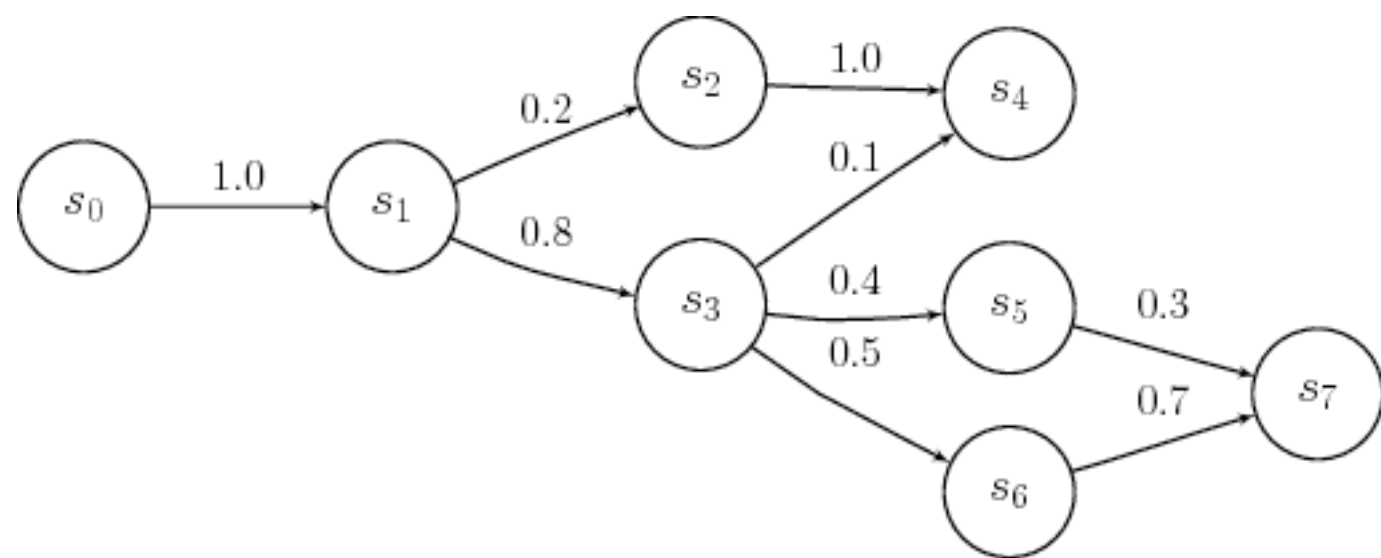
**Natural
Language
Processing**

Me



Why?

Markov Chains



Bookshrink

Find the Essence

Linear Algebra

Two Assumptions

- **Every sentence can be represented by a set of words** (order doesn't matter)
- Similar words show up near by each other in natural text

Document-Term Matrix

	I	like	hate	databases
D1	1	1	0	1
D2	1	0	1	1

"I like databases" = $[1, 1, 0, 1]$

"I hate databases" = $[1, 0, 1, 1]$

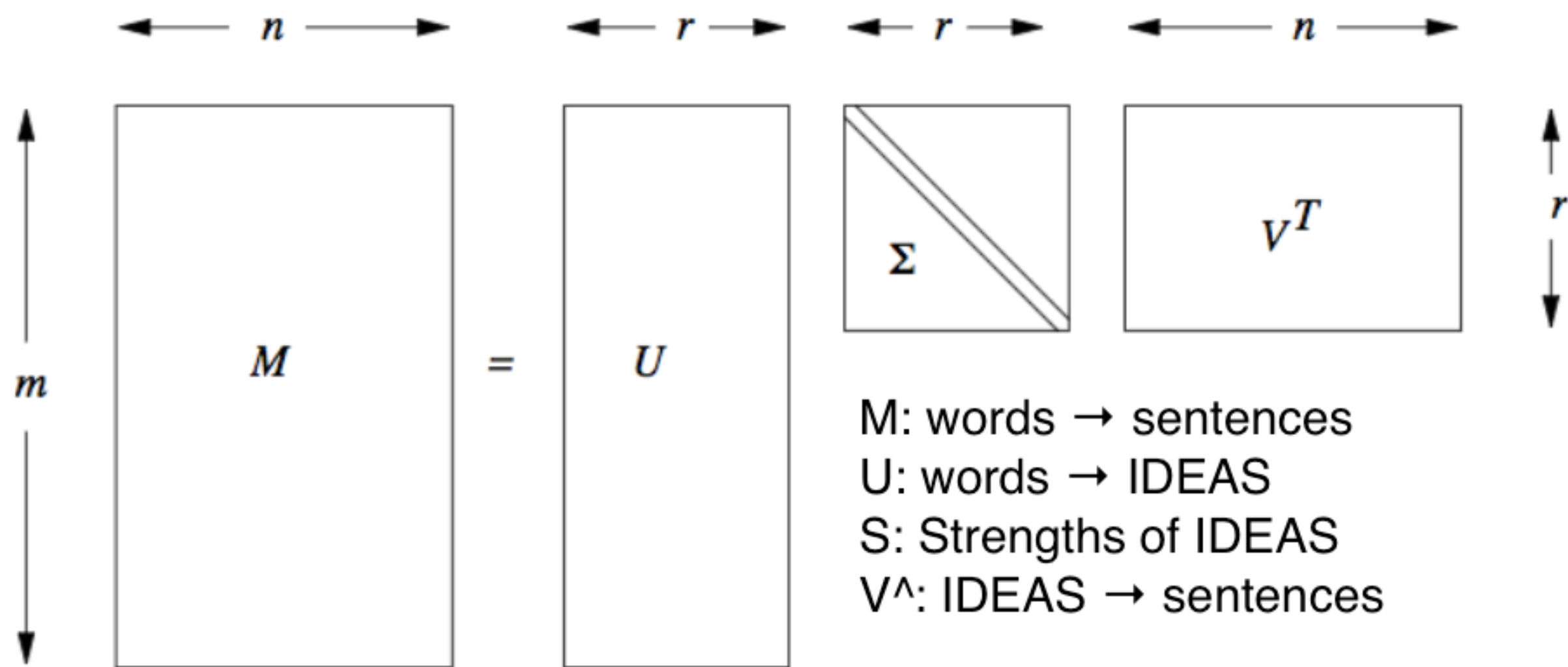


Figure 11.5: The form of a singular-value decomposition

[https://github.com/
peterldowns/essence-talk](https://github.com/peterldowns/essence-talk)