

Problem

| Time: | $t - 2$ | $t - 1$ | t | $t + 1$ |
|--------|---------|---------|-----|---------|
| Input: | The | cat | sat | ? |

Persistent Memory

Llama

| | |
|---------|--------------------------------------|
| $t - 2$ | $[K_1, V_1]$ |
| $t - 1$ | $[K_1, V_1], [K_2, V_2]$ |
| t | $[K_1, V_1], [K_2, V_2], [K_3, V_3]$ |

Mamba

h_1

h_2

h_3

Layer-wise Dataflow

