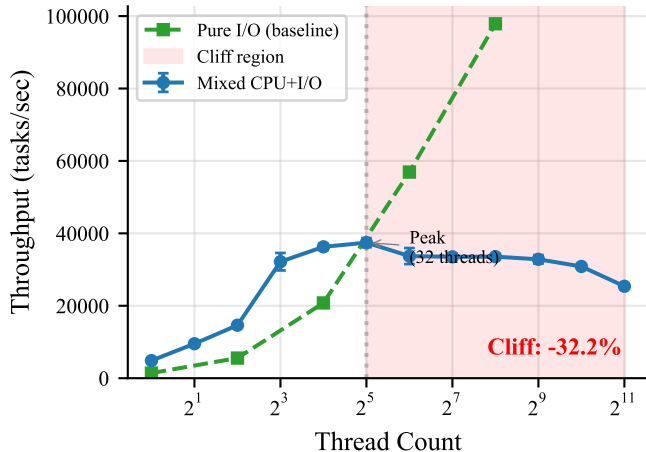**(a) Single-Core Edge Device**

(b) Quad-Core (Raspberry Pi 4)

(a) Legend: Pure I/O (baseline); Cliff region; Mixed CPU+I/O. Y-axis: Throughput (tasks/sec); X-axis: Thread Count. Peak (32 threads). Cliff: -32.2%

(b) Legend: Pure I/O (baseline); Cliff region; Mixed CPU+I/O. Y-axis: Throughput (tasks/sec); X-axis: Thread Count. Peak (64 threads). Cliff: -33.3%