**CPU thread**

1. Wait for the solidity vectors \( \{SV(P_i)\} \) of a read batch
2. Perform logical AND reduction operations on \( \{SV(P_i)\} \) in parallel
3. Filter out error-free reads in this read batch in parallel
4. Wait for the completion of the GPU thread

**GPU thread**

1. Read in a batch of reads
2. Compute the solidity vectors \( \{SV(P_i)\} \) using \( \Pi(G,P_i) \) for the read batch
3. Transfer the \( \{SV(P_i)\} \) of the read batch to the CPU thread
4. Exit the GPU thread