

Ideas for Low Celluclast Performance

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Basic Architecture

- Accesses different memory than CPU
- Starting thousands of threads at low costs

Memory Management

```
1  typedef int dtype;
2  class Storage {
3      public:
4          explicit Storage(const std::vector<int>&);
5          const dtype* cpu_pointer_const();
6          const dtype* gpu_pointer_const();
7          dtype* cpu_pointer();
8          dtype* gpu_pointer();
9
10     private:
11         std::vector<int> _data;
12         dtype* _cpu_pointer;
13         dtype* _gpu_pointer;
14         std::string recent_head;
15         void initialize_gpu_memory();
16         void sync_to_cpu();
17         void sync_to_gpu();
18     };
```