PRESENTATION OUTLINE: Histogram Sort with Sampling

Megha Agarwal
School of Computer Science
Carleton University
Ottawa, Canada K1S 5B6
meghaagarwal@cmail.carleton.ca

1 Introduction to Sorting

- What sorting does
- Why is it important
- How does it help in computer programming today

I aim to keep this a very short slide to kick off my presentation

2 Parallel and sequential sort

- What is sequential sort
- Sequential sort examples
- What is parallel sort
- Chief goal of a parallel sort algorithm
- Parallel sort examples

3 Histogram Sort

- How does Histogram sort work

4 Sample Sort

- Overview of how sample sort work

5 Overview of Histogram Sort with Sampling

- Includes the general idea of all the steps included

6 Sampling in HSS

- Step 1: Sampling phase
- Step 2: Splitter determination
- Step 3: Exchanging data

7 Histogramming in HSS

- Step 1: Local sort
- Step 2: Splitting
- Step 3: Data exchange
- Step 4: Local merge

8 An alternative: Hyksort

- A quick overview of how it works
- Drawbacks of this algorithm

9 An alternative: AMS-sort

- A quick overview of how it works
- Drawbacks of this algorithm

10 Benefits of HSS over others

- List down why HSS is better than HykSort and AMS-sort and how that is done

11 Implementation setup

- Describe the language, processors, dataset, etc. used for the project.
- A brief idea about Charm++ and its processing

12 Estimated results achieved by HSS

- Show graphical represntation
- Show the theoritical time complexity