Research paper plan

My research paper will be presented in the following aspects:

***1.Topic: Adaptivity in Stateful Parallel Patterns***

***2.abstract:***

Will briefly explain the background, purpose of the research work, research methods and final conclusions.

***3.introduction***

1.Structure parallel model: Provides programmers with pre-written parallel frameworks to improve the efficiency of their code writing.

2.Background of current programming model: The mainstream parallel framework is still openmp and mpi, and the popularity of a new high-efficiency parallel framework is a top priority.

3.Fastflow: Fastflow is a C++ parallel programming framework advocating high-level, pattern-based parallel programming

4.the definition of Stateful pattern:

5.the definition of Adaptive and why it’s very necessary to research adaptive on stateful pattern nowadays

6.Finally tell what will include in this paper.

***4.relative work and approach***

1.The details of Fastflow:

Write the basic theory and structure of Fastflow here, focusing on explaining Fastflow task-farm pattern

2.The necessary of adaptive stateful pattern:

Stateful may not have the ability to gain parallelism, so we now need to understand the impact of adaptive and to what extent it effects on stateful pattern

3.Describe the way to implement the stateful access pattern:

1….

2…

3…

***5.evaluation (the main part)***

1.Firstly offer the Pseudo code of the implemented code

2.describe the evaluation environment

3.describe the overhead of each uniform task.

4.verify the correctness of the implement of Fastflow parallel framework:

This section presents an idealized model for the relative performance of parallel over serial

5. verify the correctness of introduce the stateful pattern on Fastflow parallel framework:

This section presents an idealized model for the relative stateful pattern in case of heterogeneous architectures. The model is used to evaluate the efficiency of the implementation

6. Implicit the adaptivity in stateful parallel pattern of task execution

A series of formulas and charts will be introduced to illustrate the effectiveness of the adaptable stateful patterns implemented.

***6.conclusion***

(1) The experimental results illustrate what problems and the principles of the Fastflow framework.;

(2) how can the Fastflow will be used in practical

(3) Compare with previous research results. What are the similarities and differences.

(4) The remaining issues and recommendations and prospects of this research in fastflow.