ALGORITHMS FOR CLUSTERING HIGHLY CONSERVED PHYLOGENETIC MARKERS

A prospectus submitted in partial fulfillment of the degree of Doctor of Philosophy

Preliminary Oral Examination for Christopher Mihcael Hill

Advisor: Dr. Mihai Pop

Committee Members: Dr. First M. Last Dr. First M. Last

Department of Computer Science University of Maryland, College Park, MD 20742 Month Day, Year

Abstract

Insert abstract here.

Contents

1	Introduction	4				
2	Related Work					
3	Preliminary Work					
	3.1 Parallelizing sequence recruitment to a cluster center	5				
	3.1.1 Naive	5				
	3.1.2 Work-based	5				
	3.2 Efficient data structures for edit distance computation	5				
	3.2.1 Suffix tree cluster center representation	5				
4	Proposed Work					
	4.1 Farrah's algorithm for SIMD edit distance computation	5				
	4.2 Streaming clustering	5				
5	Timeline	5				
6	Conclusion	6				
\mathbf{A}	Reading List	7				
	A.1 Area 1	7				
	A.2 Area 2	7				
	A.3 Area 3	7				
В	Appendix A	9				

List of Figures

1 Introduction

Introduction here [1].

2 Related Work

3 Preliminary Work

- 3.1 Parallelizing sequence recruitment to a cluster center
- 3.1.1 Naive
- 3.1.2 Work-based
- 3.2 Efficient data structures for edit distance computation
- 3.2.1 Suffix tree cluster center representation

4 Proposed Work

- 4.1 Farrah's algorithm for SIMD edit distance computation
- 4.2 Streaming clustering

5 Timeline

Item 1	2 months	
Item 2	3 months	
Item 3	4-5 months	
Item 4	2-3 months	
TOTAL	11-13 months	

Paper deadline goals:

• Conference, Month Year: Project 1

• Conference, Month Year: Project 2

• Conference, Month Year: Project 3

6 Conclusion

Insert conclusion here.

A Reading List

A.1 Area 1

1) Citation 1.

2) Citation 2.

3) Citation 3.

4) Citation 4.
5) Citation 5.
A.2 Area 2
1) Citation 1.
2) Citation 2.
3) Citation 3.
4) Citation 4.
5) Citation 5.
A.3 Area 3
1) Citation 1.
2) Citation 2.
3) Citation 3.

- 4) Citation 4.
- 5) Citation 5.

B Appendix A

References

 $[1]\ {\it First Last.}\ {\it Source\ Title.}\ {\it Year.}$