

Summarizes the Hypothesis of the Paper

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Abstract

- 1) *Motivation: Why do we care about the problem and the results?*
- 2) *Problem statement: What problem is the paper trying to solve and what is the scope of the work?*
- 3) *Approach: What was done to solve the problem?*
- 4) *Results: What is the answer to the problem?*
- 5) *Conclusions: What implications does the answer imply?*

Introduction

What is the problem?

Why is the problem important?

What has so far been done on the problem?

- 1) describes previous work in more technical detail
- 2) as far as needed for a proper understanding of the contribution of the paper

What is the contribution of the paper on the problem?

- 1) What are the rival approaches?
- 2) What are the drawbacks of each?
- 3) How has the battle between different approaches progressed?
- 4) What are the major outstanding problems? (This is where you come in)

Is the contribution original? Explain why

Is the contribution non-trivial? Explain why

The authors are not aware of any other work where this approach has been considered.

Methods

Part 1

- 1) What algorithms or data structures did you select? Who created them? What is their asymptotic behavior? What other specific characteristics are worth noting for this study?
- 2) What programming language and platform did you use? What impact did these choices have on your project?

Part 2

- 1) How specifically did you implement the algorithms?
- 2) How did you handle instrumentation code? Why?
- 3) Did you perform any optimizations? Why or why not?
- 4) How did you choose to test and benchmark your code?
- 5) What inputs (data) did you select to test your implementations? Why?

Results

- 1) In general, the pure, unbiased results should be presented first without interpretation (van Wagenen 1990).
- 2) These results should present the raw data or the results after applying the techniques outlined in the methods section.

* Authors provided equal contribution.

The results are simply results; they do not draw conclusions.

Discussion

- 1) What, specifically, did you learn from comparing these algorithms or data structures?
- 2) What do your results say about the problem or question you were investigating?
- 3) Was your hypothesis confirmed or disproved?
- 4) Are the results what you expected?
- 5) If you obtained anomalies or other unexpected results, can you explain them? If not, how could you set about in the future to identify what caused them?
- 6) How do your results compare to past findings? Are they consistent? Different? Why?
- 7) How would you respond to objections or questions that other researchers might have about your methods, results, or interpretations?
- 8) What is new and significant?

Conclusion

- 1) The hypothesis and the evidence for and against it are briefly restated
- 2) The original motivation is recapitulated
- 3) The state of the field in the light of this new contribution is reassessed
- 4) describes future research and new directions suggested by the contribution
- 5) in particular, research that would improve the evidence for or against the hypothesis

Acknowledgments

Comming soon!