Paper Review

“An evaluation of the ninth SOSP submissions or how (and how not) to write a good systems paper”

1. In order to write a good system paper, the author needs to:

1.1. Propose a new idea

A good paper needs to challenge something instead of using ready-made techniques.

1.2. Be familiar to related researches

A good paper stands on the shoulders of giants. The researcher needs to read state-of-art papers from researchers with good reputations during the proposal. His paper will have insufficient, which can be the main problem to solve in the following paper. For example, I was researching 2D tracking with the acoustic system, and previous research has a drawback: it cannot work continuously. After carefully brainstorming, I decided to use the new BLE protocol to solve this problem and not introduce any new device. During the early stage, I read the papers from reputable labs and papers citing and being cited, which make me assured that my work is meaningful and valuable.

1.3. Cost-effective

Research should be cost-effective and contain two-part of meanings, and it should be either easy to understand or something new. The early discussion stage may result in the reinvention of ”electric motorbikes” or an extensive system containing unstable and ambiguous components. Researchers should iterate the above results out in the following discussions. In my opinion, a good paper should have realistic application scenarios, complete and solid solutions, and be considerate in every way.

1.4. Challenge

An article is not a simple arrangement of other articles to piece together the answer. The author needs to do much work and learn a lot (sometimes, reaching the state-of-art level can cost a Ph.D.). I am used to discussing my recent works with friends from communities from my habits. If work is worthy or attractive, we will look deep into it and enjoy our discussion. Otherwise, the discussion is a waste of time. The paper needs to contain valuable information and non-repeating work. Usually, the work takes many efforts.

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1.5. Writing skills

+ Carefully check and list All references.
+ Paper needs to state assumptions carefully.
+ Models should be accurate and non-redundant.
+ Introductory material needs to be precise.
+ The author needs to assure that readers can follow his thread of statements.
+ Write paper clear and concise.
+ Spell and use words correctly.
+ Complete and correct the sentences.
+ Avoid ambiguity, slang, and cuteness.
+ Subscribe Grammarly premium.

1.6. Presentation skills

+ Organize and present ideas clearly and logically.
+ Define ideas before they are read.
+ Minimize forward references.
+ Consider alternative organizations.
+ Communicate the important ideas of the paper in the abstract and first write it.
+ Keep the paper finished.

2. Additional ideas

As a junior student in computer science, experience and knowledge are what I lack compared with seniors. To write a good paper, I need to find a suitable field. Breakthrough in fundamental computer science fields costs years of effort and long-period even if one is talented and hard-working. For example, top papers in programming language usually cost a Ph.D.

Untraditional fields such as machine learning and HCI have a shorter research period, and many hot problems need to be solved. Although my interest is in computer systems and networks, it's still a good chance for junior students to get essential research experience and results in the combination of machine learning and systems.