

# Reaction Notes Process for Reading Research Papers

Machine Learning Research Experience

## 1 First Iteration

Read the title, publication date and venue, author affiliation.

Read the following sections in order. After each section, answer the associated question(s).

1. Abstract: Any unfamiliar terms? Note them (don't look them up yet).
2. Introduction: Any unfamiliar terms? Note them (don't look them up yet).
3. Conclusion: Any unfamiliar terms? Note them (don't look them up yet).

Now, look up the terms from the Abstract, Introduction and Conclusions that were unfamiliar to you. Use repeated occurrences of the same term to identify 3-5 terms that were unfamiliar to you. Then, answer the following questions about the paper:

1. What is the key research question addressed in this paper? What is the problem that the authors intend to solve?
2. What are the key contributions of this work? Some questions to address when answering this include:
  - What are some other possible ways to approach this problem?
  - What is unique or special about the solution put forth by the authors of this paper?
  - How do the authors prove that they solved the problem they intended to solve?
  - Is the authors' argument convincing? What is the evidence that they provide?

## 2 Second Iteration

1. Read the titles of the sections and subsections. Also, read the first paragraph of each section (not subsection). Finally, read the figure captions.
2. Write out a summary of the key point(s) of each section. Identify the section(s) that contain the authors' main results.

## 3 Third Iteration

1. Identify the critical parts of the main results section(s). See what you can understand and note any key points.
2. Additionally, note any questions you have or any unclear parts. What would you want to understand further?
3. Finally, provide a point of discussion about this paper. This could be about how the paper contributed to the conversation of its field (using forward and backward citation searches), a toy example used in the paper or one that you would like to see this work applied to, etc.

# My Paper Title

## 1 Highlights

### 1.1 Key Research Question

*Your response to the following question goes here:*

***What is the key research question addressed in this paper?***

### 1.2 Key Contributions

*Your response to the following question goes here:*

***What are the key contributions of this work?***

### 1.3 Future Work

*Your response to the following question goes here:*

***Can you think of any avenues for future work that could extend the result put forth in this paper?***

## 2 Details

### 2.1 Section Summaries

*Your response to the following question goes here:*

***What are the key points of each section? Summarize each section briefly.***

**Section Name** section summary

**Section Name** section summary

### 2.2 Keywords

*Your response to the following question goes here:*

***What are the keywords used in this paper? Define them in your own words.***

**Keyword** definition

**Keyword** definition

### 2.3 Discussion

*Your response to the following question goes here:*

***Provide a point of discussion about this paper.***