

How to Read Research Papers

Reading Research Papers, Accelerating your Efficiency

1. Compile list of papers (research papers, Medium posts, Blogs, etc.). You can use tools like Zotero or Mendeley to organize your bibliography.
2. Skip around the list.
 - a. Glance through the list, maybe read only 10% of each paper.
 - b. Weed out duds.
 - c. Pick one of the papers to dive into.
3. 15-20 papers gives you basic understanding maybe enough to implement. 50-100 papers give you very solid understanding, can start research.
4. Shoot for reading 1-2 papers deeply per week. ⇒ Reading Group!

How to Read Research Papers - II

How to Read a Paper

Do it in multiple passes.

1. Title, abstract and figures. Especially the key figure(s).
2. Intro, Conclusions, Figures then skim the rest
3. Maybe skim or skip related work. Sometimes authors try to cite people that may be reviewers.
4. Read the paper but skim/skip the math.
5. Read whole thing but skip parts that don't make sense. Often even authors don't know what will make the biggest impact until later.
6. Go Deeper: Re-derive the math from memory.
7. Go Deeper: Re-implement the network from scratch.

How to Read Research Papers - III

Some questions to ask yourself.

- What did authors try to accomplish?
- What were the key elements of the approach?
- What can you use yourself?
- What other references do you want to follow?

Optional Exercise

Look up “[Deep Residual Learning for Image Recognition](#)” on scholar.google.com.

Take 7 minutes to scan and read the paper in multiple passes as previously discussed. Highlight key points and graphs.

Take a few minutes and jot down the key takeaways.