

Path to Your First Publication

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Contents

- 1 Benefits of Publishing
- 2 Types of Papers
- 3 Publication Process
- 4 Sections in a Paper
- 5 Further Suggestions

Brief Biography (*Should you be listening to me?*)

- Professional Experience
 - **Walmart Global Tech:** Principal Data Scientist (Sep 2020 – Present)
 - **Intel Labs:** Research Scientist (Aug 2015 – Aug 2020)
- Educational Background
 - **PhD:** Computer Science & Engineering, IIT Kharagpur (2010 – 2015)
 - **BTech:** Computer Science & Engineering, Heritage Inst of Tech (2004 – 2008)
- Research Highlights
 - 8 journal publications
 - ~50 conference publications
 - 867 citations (as on May 30, 2023)
 - Best PhD Thesis Awards, Best Paper Awards, Special Mentions
 - IEEE Senior Member, ACM Senior Member

Benefits of Publishing (*Should you publish?*)

- **Gaining Credit:** Who are the OGs of an idea? (*Order of co-authors*)
- **Recognition:** Showcases thought leadership, great additions to resume
- **Giving Back to Society:** Methodology, code, data – can be reused by others
- **Improves Analytical Thinking:** Projects you as an upcoming leader
 - **Motivation:** How to motivate that a problem is worth solving
 - **Literature Survey:** How to find gaps in the current solutions
 - **Presentation:** How to present the methodology and the results interestingly
- **Mentorship:** With advanced analytical thinking, you can become a mentor
- **Public Speaking:** Share your research with the audience in a conference
- **Growth in Professional Societies:** Elevation in IEEE, ACM, etc.

Types of Papers (*What are the different forms of papers?*)

Table: Comparison Table

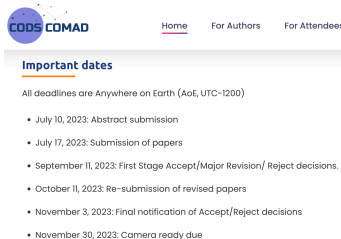
	White Paper	Workshop	Conference	Journal
Purpose	Quick dissemination, get market attention	Get initial feedback, visit host conference, warm-up publishing	Showcase research, get feedback and recognition from peers	Showcase extended results, show e2e framework
Peer-reviewed	×	✓	✓	✓
Review time	NA	1-2 months	2-5 months	3-18 months
Contribution	NA	Less	More	Highest
Presentation	×	✓	✓	×
Fee Payment	×	✓	✓	Maybe

- Tracks in a workshop/conference:
 - **Research Track:** Focuses on novel ideas
 - **Applied/Industry Track:** Focuses on robust implementation of an idea
- Length of a paper:
 - **Full Paper:** Describes a full-fledged research with extensive results
 - **Short Paper:** Describes an ongoing work with initial results
- Modes of presentation:
 - **[Ppt] Presentation:** Present a slide deck to a gathered audience
 - **Poster Presentation:** Present a printed poster to a walk-by audience

Publication Process (*How long before I get to publish?*)

Typical steps involved in publishing at a conference:

- ❶ Form an idea
- ❷ Read relevant literature
- ❸ Concretize problem statement
- ❹ Formulate a solution
- ❺ Conduct experiments
- ❻ Write a paper
- ❼ **Abstract Submission:** Submit the title, abstract (idea) and list of authors
- ❽ **Full Paper Submission:** Upload entire paper in a specified template
- ❾ **Initial Review:** Receive initial review of your paper by reviewers
- ❿ **Rebuttal/Re-submission:** Prepare a response to the reviewers queries
- ⓫ **Notification:** Final decision is sent — Accept/Reject
- ⓬ **Camera Ready Submission:** *Accepted* papers are sent with copyright info
 - Journals may have multiple rounds of re-submissions



Sections in a Paper (*How the paper should be organized?*)

Typically, a paper has the following sections:

- ➊ **Abstract:** A brief summary of the work done
- ➋ **Introduction:** Description of the problem and the motivation
- ➌ **Related Work:** Literature survey of relevant papers
- ➍ **Methodology:** Description of the solution
- ➎ **Experimental Results:** Empirical evidence supporting your claim
- ➏ **Conclusion:** Summary of work done and potential future work

Sometimes, the authors have additional sections such as the following:

- **Dataset Description:** Describe the dataset used for experiments
- **Architecture:** Overview of the end-to-end workflow
- **Further Discussion:** Share key insights

Further Suggestions (*What else may be helpful?*)

- *Research should start with the best place to search papers:* Google Scholar
- Best place to search for datasets: Google Dataset Search
- Best site to upload code: GitHub (CoPilot can be helpful)
- Great site to upload dataset: Zenodo (Open and free, default limit: 50GB)
- Great site to detect *plagiarism*: turnitin
 - Put copied text in “quotes”. Cite original sources for texts, tables, figures.
- **Single Blind Review:** The reviewers know the identity of the authors
- **Double Blind Review:** The authors make submissions anonymously
 - *In our earlier work [10], we have ... → In [10], the authors have ...*

Patent	Paper
Describes an innovation	May describe other things
Reviewed by legal team	Peer-reviewed
Recommended to do earlier	Recommended to do later
Typically owned by company	If copyrighted, typically owned by authors
You get money from company	Hopefully, you'll be reimbursed

“Research is seeing what everybody else has seen and thinking what nobody else has thought.”

– Albert Szent-Györgyi

“Research is formalized curiosity. It is poking and prying with a purpose.”

– Zora Neale Hurston

Thank you!

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