

How to effectively structure presentations with engineers' mindset

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Outline

1. Know engineer's mindset
: The structure of **scientific research papers**
2. Transform **scientific research papers** to ***presentations***
3. Optimization for ***data scientific presentations***

Know engineer's mindset

The structure of scientific research papers

- Introduction 123
 1. Problem statement: Why this topic matters - broad to narrow
 2. Relevant literature review: What others did and NOT DO (limitation)
 3. My research statement: Objective + Plan 1, 2, 3
- Theory/Background
- Methods
- Results: Describe the results
- Discussions: Reason(why) or implication(what it means)
- Summary/Conclusions 123
 1. Summary: Objectives + Plan/Results
 2. Conclusive implication internally & externally
 3. Future work
- References

Transform scientific research papers into presentations

Papers

- Introduction 123
 1. Problem statement: Why this topic matters - broad to narrow
 2. Relevant literature review: What others did and NOT DO (limitation)
 3. My research statement: Objective + Plan 1, 2, 3
- Theory/Background
- Methods
- Results: Describe the results
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Presentation

1. Title
2. Outline
 - Motivation
 - *Objective*
 - *Plan1*
 - *Plan2*
 - *Plan3*
 - Summary
3. Motivation: Introduction 123
4. (Optional) Theory/ Background
5. Methods
6. Results + Discussion 1, 2, 3
7. Summary/ Conclusions 123
8. Thank you! Q & A
9. References
10. (Optional) Additional materials

Optimization for data scientific presentations

Scientific research presentation

1. Title
2. Outline
 - Motivation
 - *Objective*
 - *Plan1*
 - *Plan2*
 - *Plan3*
 - Summary
3. Motivation: Introduction 123
4. (Optional) Theory/ Background
5. Methods
6. Results + Discussion 1, 2, 3
7. Summary/ Conclusions 123
8. Thank you! Q & A
9. References
10. (Optional) Additional materials

Data scientific presentation

1. Title
2. Outline
 - Introduction
 - Plan1. (Exploratory) Data analysis
 - Plan2. Modeling
 - Summary
3. Introduction
 1. Introduce subject
 2. Data outline
4. Plan1. Results + Discussion (**Domain knowledge**)
5. Plan2. Methods + Results + Discussion (**Domain knowledge**)
6. Summary/ Conclusions 123
7. Thank you! Q & A
8. References
9. (Optional) Additional materials

Thank you!

Q & A