

# A Quick Guide to LINs Lab

**Dr. Tao LIN**

December 26, 2022



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Please check out our internal guidelines at

`https://github.com/LINs-lab/lab\_internal\_guides`

and try to follow the rules and suggestions.

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## 1 Communication is the key

- How to work with your advisor effectively
- How to share progress with your advisors and collaborators
- How to read the paper
- Other important advices

## 2 Lab rules

# Why do we need efficient & effective communication?

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You are the primary responsible person  
for YOUR research, career, and life.

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## ② Lab rules

## How to work with your advisor effectively: Frequent update

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- Send frequent and concise updates along the way.

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- Asking for help is not a sign of weakness.

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We use GitHub for this process!

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- Help them help you get unstuck.

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That's why we need to use GitHub (before/after the meeting)!

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That is why we use “Slack” as our research platform!

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- This will provide the context for them to help interpret the results and steer the direction of your research.

# How to share progress (Hypothesis: What do we expect to see?)

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- comment on what should have happened (if everything is correct)?

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- Describe HOW it fails (with details and ideally in a self-contained manner).



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- Say something like
  - I’ve narrowed down the problem to step *B*.
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  - Next, I will design experiments to isolate the step *Z*.

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Seeing the results with a good visualization helps

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  - DON't: "Any feedback on the next steps?"
  - DO: "I plan to do X and then Y because of Z."
- Remember that you are the main DRIVER of the project. Don't just wait for instructions.



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Try to use the feature of “GitHub Issue”  
for better project management!

# Table of Contents

## 1 Communication is the key

- How to work with your advisor effectively
- How to share progress with your advisors and collaborators
- How to read the paper
- Other important advices

## 2 Lab rules



## Template 1: When reading a paper, please try to answer these questions (using 1-3 sentences).

- What is the problem? / How important is it?
- What are the insights? (something like principle; what are the intuitions; why is it possible to carry out the design of this method)
- What is the solution? / Is it feasible? (is the understanding approach appropriate; why this understanding approach is used; and is there a better understanding approach; can it be improved in terms of computational volume or memory)
- What is the takeaway message? (different from insights; what interesting phenomena can be observed after designing this method)
- Will this paper win the test of time award? (what does this paper really mean for the domain)
- Name one reason why this paper should have not appeared in NIPS, ICML, ICLR, etc?

# Template 2

- What's New
- Key insight
- How it works
- Results
- Why it matters
- We're thinking

An example can be found in

<https://www.deeplearning.ai/the-batch/update-any-language-model/>.

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Please check out our internal guidelines at

[https://github.com/LINs-lab/lab\\_internal\\_guides](https://github.com/LINs-lab/lab_internal_guides)

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# Two key tools

For progress control, we use  
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or please help us to add more details/examples.



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## **Study group (weekly lecture):**

We are launching a weekly study group on some crucial topics.

Thanks & Question Time!