## Seeking Applicants

Two full time PhD students for Fall 2025, with full scholarship / stipends: <a href="https://www.ntu.edu.sg/education/graduate-programme/ccds-phd-cs-engineering">https://www.ntu.edu.sg/education/graduate-programme/ccds-phd-cs-engineering</a>

Send CV and SOP to: <a href="mailto:yewenpu1989@gmail.com">yewenpu1989@gmail.com</a>

Please include "[Prospective PhD student]" in the email title.

Student Requirements:

Self motivated, earnest about doing science, solid math foundations, compatible with Lab's direction.

#### About the Lab

# https://evanthebouncy.github.io/natural-programming-lab/

Why is human-human communication so effortless, while human-machine communication so difficult? To answer this question, our lab focuses on (1) human-human instruction data curation, (2) modeling these data through algorithm and computation, and (3) to build more intuitive interactive agents from the insights gained. Natural Programming Lab is well funded to curate large scale human instruction datasets and to train models from these datasets, taking a more industry-driven style of academic research.

The mission statement of the Lab is:

What are the core cognitive mechanisms of efficient human communication, and how can we leverage these mechanisms to build intuitive agentic systems?

### Pro of our Lab:

- 1. Dr. Pu has 15 years of experience in code generation. He is the leader in applying computational cognitive science in building interactive systems.
- 2. Lab is well funded for dataset curation and ML model training.
- 3. Lab is well connected with other top Universities and Industry.

# Con of our Lab:

1. Lab is brand new, so there will be uncertainty and risk (but also opportunity).



<--- Lab right now

## School Summary

NTU 2024 is ranked by QS 9th in the world, and 5th in AI. The school is international, located in Singapore, where English is the primary language. School location is away from the busy city center, and a quiet place to think deeply.

### About the PI

Dr. Yewen Pu (<a href="https://evanthebouncy.github.io/">https://evanthebouncy.github.io/</a>). Prior to joining NTU, he was a senior research scientist at Autodesk Al lab, leading the efforts of curating large-scale human instruction datasets for training interactive agents. He has a PhD from MIT (CS), and B.A. from UC Berkeley (Math, CS). His research direction is Al, code generation, and computational cognitive science.

Dr. Pu has 20 publications at top conferences such as NeurIPS, ICLR, and collaborates broadly across top institutions such as MIT, CMU, Cornell, etc, and from industry at Autodesk. He has 5 years of experience advising and publishing records from top students from aforementioned institutions. In industry, he has rich experience in collecting human-human, human-machine multi-modal interaction datasets, with a total curation effort of nearly \$1M.

After 4 years in industry, he has decided to focus on science and make his own team. His goal is to use data curation and algorithm development to uncover the algorithmic principles of effective human-human communication.

– evan pu