

LLM-based Interaction for Academic Language Learning: Four Case Studies



Nobuaki MINEMATSU and Mayuko AIBA
The University of Tokyo



From yesterday's talk

Special Training for English Academic Communication

Two-month intensive daily course for comprehensive speech training

- For listening, pronunciation, and conversation with ChatGPT
- About 30-min daily practices during a summer or spring break



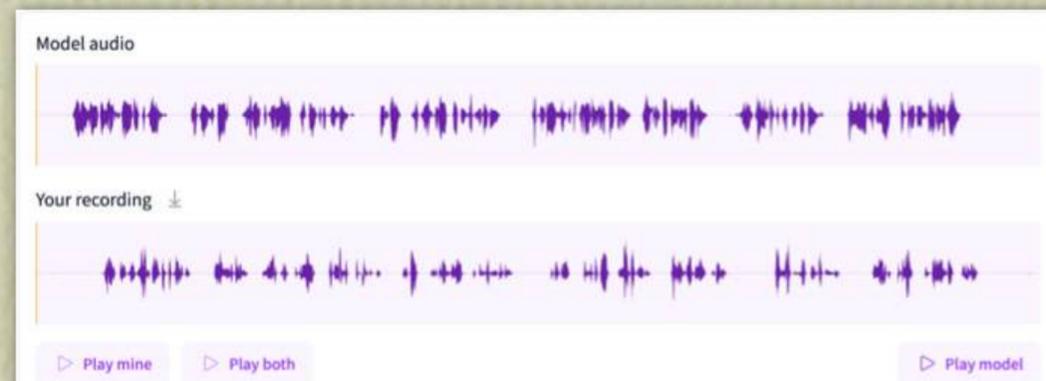
工学系研究科
国際工学教育推進機構
国際教育部門

Listening
Special
Training for
English
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聞ける耳。伝わる口。考える頭。

STEACは、日頃英語の音に接していない耳と口と頭を英語漬けにすることを狙った、夏/春休み毎日30分のオンデマンド特訓授業です。音声技術・言語技術、そしてAI技術を用いて、皆さんの「聞く」「話す」「考える」を鍛え、皆さんの能力を可視化し、スコア化し、評価し、その都度、フィードバックを返します。
夏休み：工学部3年生対象、春休み：工学部2年生対象（各1単位）

工学系及び情報理工学系研究科は2024年度から授業が英語化されます
学部生のうちに「聞ける耳、伝わる口、考える頭」を身につけましょう



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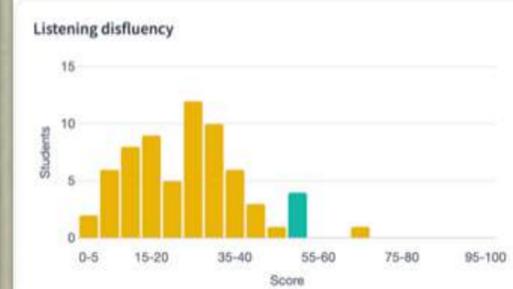
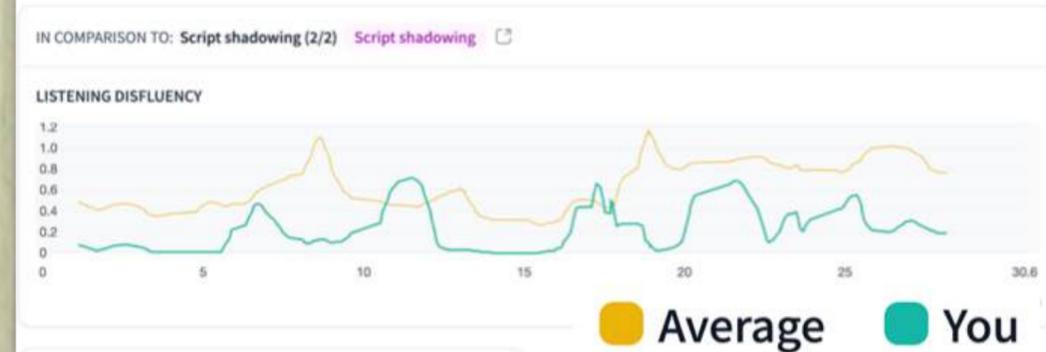
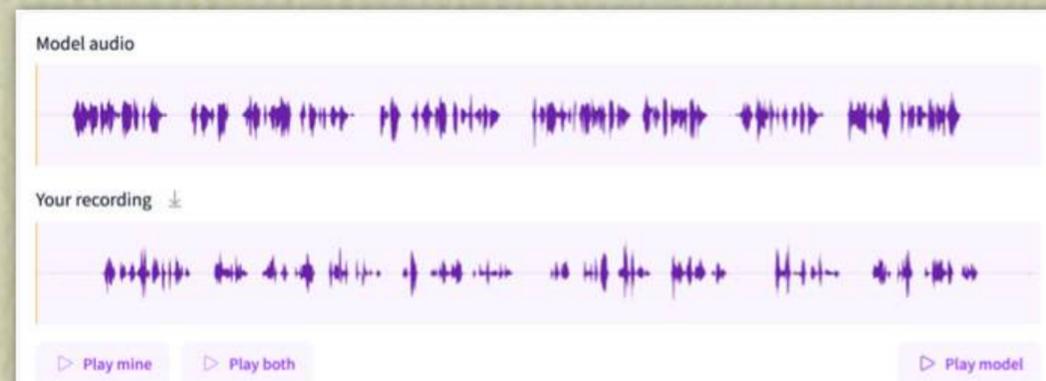
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GPT plays the role of various characters in various context.

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30-min speech training drills for 2 months (Summer@2025)

Provided mainly for 2nd-year and 3rd-year technical students as elective class

Listening, Pronunciation, and Speaking while thinking with GPT



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4	Shadowing GA English Visualization of listening disfluency (LD) and ASR results				
11	Shadowing GA + overlapping GA Visualization of LD, ASR results, and pronunciation gaps (PG)				
18	Shadowing and overlapping GA + phrase-based retention of GA Visualization of LD, ASR results, and PG				
25	Shadowing and overlapping GA + conversation with GPT Visualization of LD, ASR results, and PG				

1	Shadowing World Englishes (WE), overlapping GA, and GPT Visualization of LD, ASR results, and PG + GPT-based assessment				
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	1) guessing game, 2) lie detection game, 3) story recall game 4) topic-based discussion, 5) interviewing TED speakers				

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Speaking while thinking with GPT

Customized GPTs with pre-embedded prompts



● Guessing Game

- The learner gives hints about a target expression, and GPT tries to guess it. This helps learners develop the ability to explain that expression when they cannot recall it directly.

● Story Recall Game

- GPT generates and reads aloud a short story (about 30 seconds). The learner then recalls and retells the story, which enhances learners' semantic working memory.

● Lie Detection Game

- Learners watch a self-introduction video created by an international student that contains three lies about their hometown. They discuss with GPT to identify the false statements.

● Topic-based Discussion

- The learner expresses their opinion on a given topic. GPT actively challenges the learner.

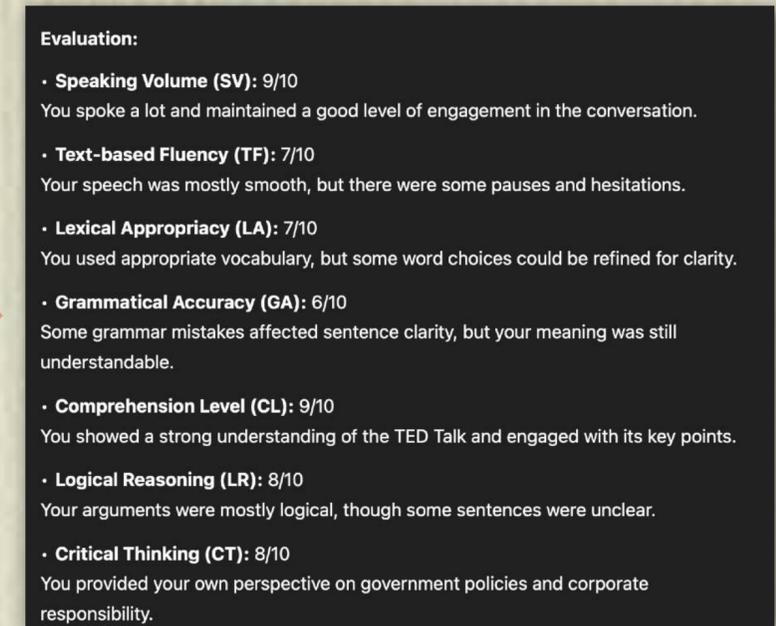
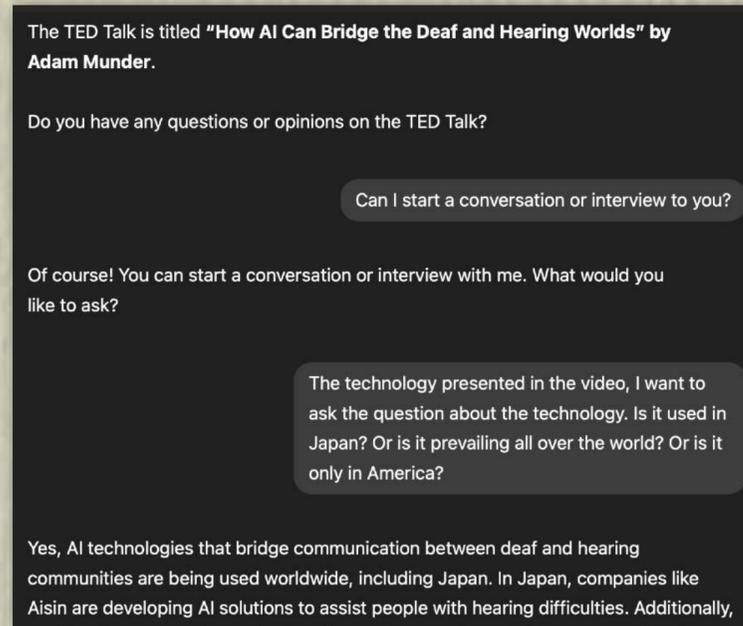
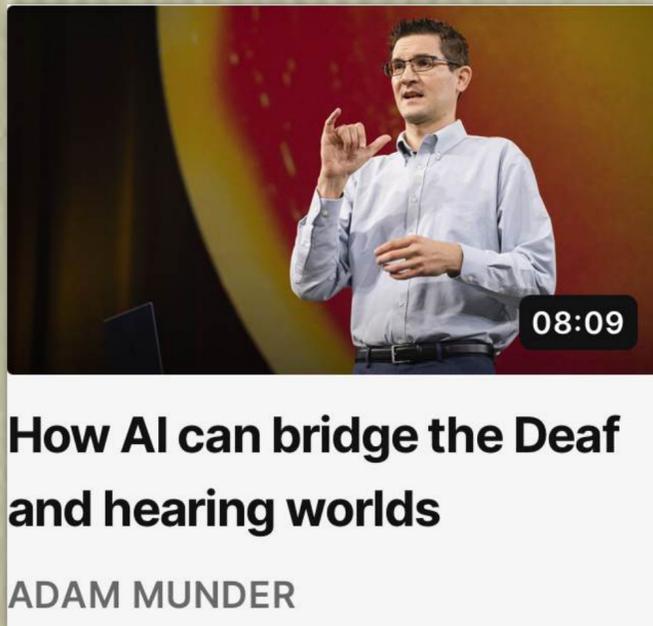
● Interviewing a TED Speaker

- Learners watch and understand a TED Talk. GPT then role-plays the TED speaker, and the learner interviews the speaker as a journalist.

Speaking while thinking with GPT

Customized GPT can role-play as a selected TED speaker.

- A learner selects a TED talk and collects its URL with transcription.
 - <https://www.ted.com/talks/abcdefghijklmnopqrstuvwx/abcdefghijklmnopqrstuvwx/transcript>
 - The learner puts the URL in the customized GPT's window.
- Clicks the voice mode button to start interviewing the TED speaker.
 - After the interview, the recognized transcript is used for automatic assessment by GPT.
- Several learners enjoyed interviewing longer than 30 min.



Something missing.....

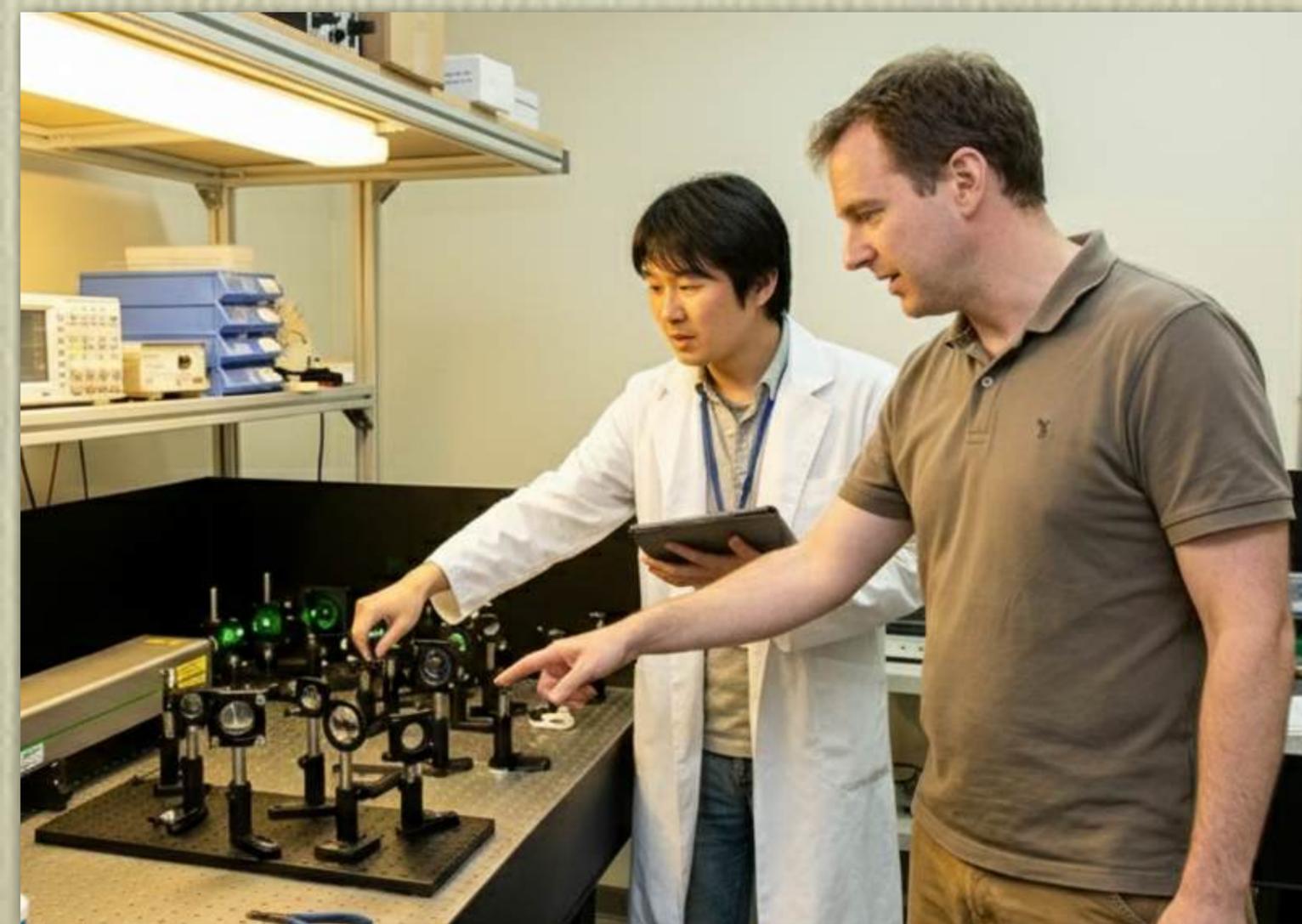
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- We're training young engineering researchers.
- What is the main context, where they are required to speak English fluently?

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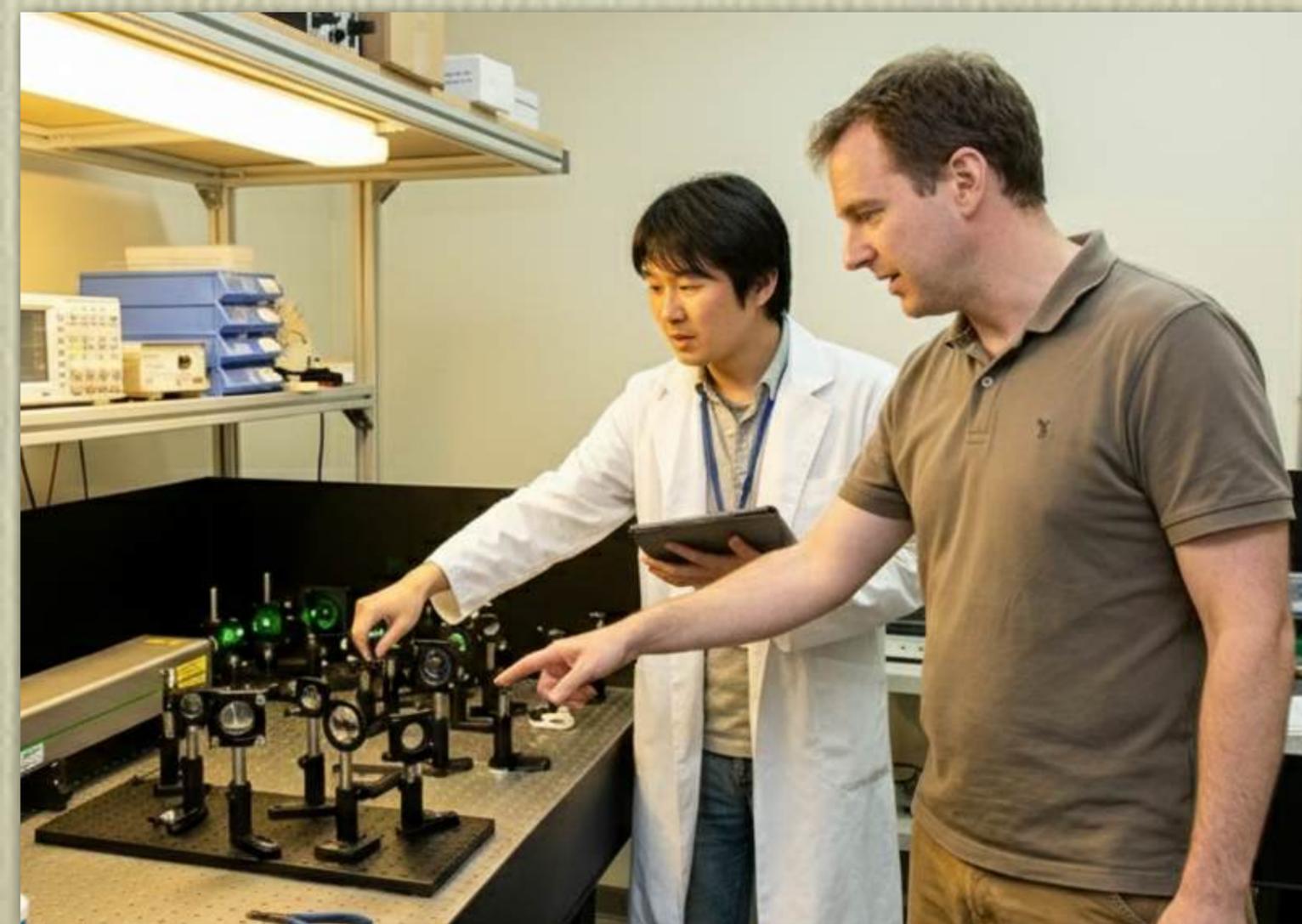
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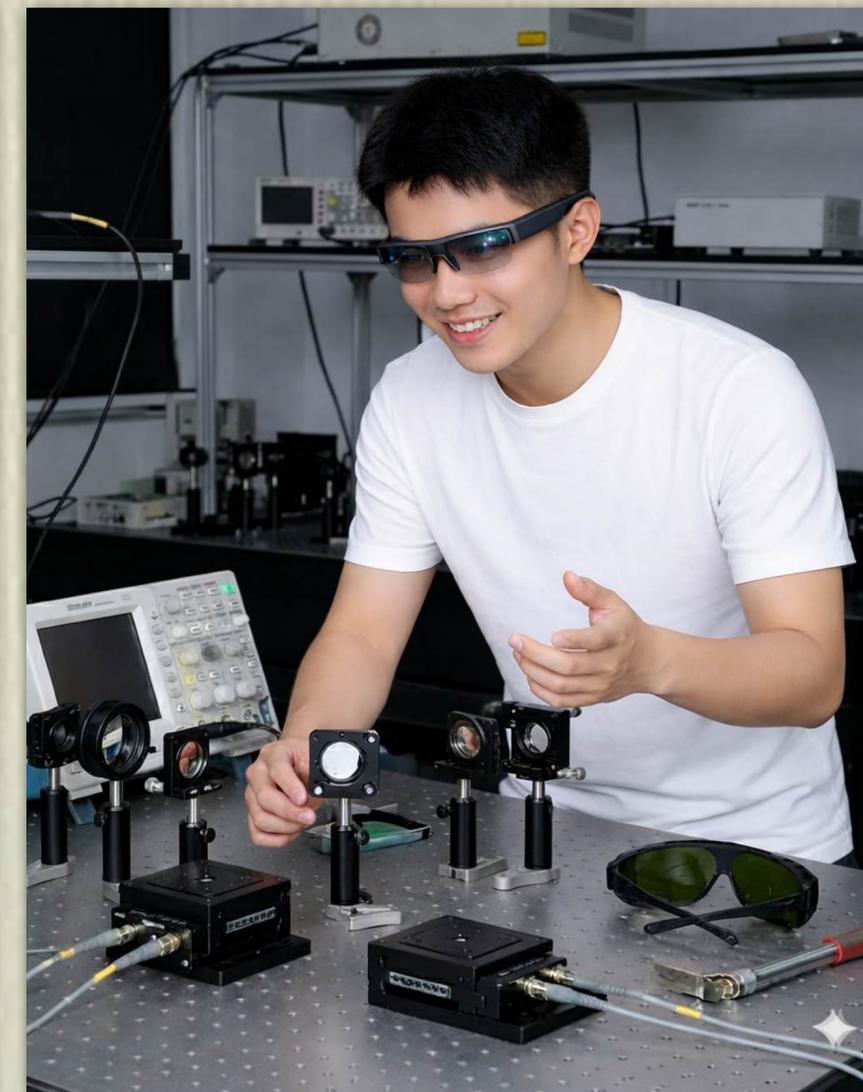
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