LI-CHUN (PHOEBE) LU

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EDUCATION

National Taiwan University (NTU) **Taipei, Taiwan**

Ph.D. Student in Graduate Institute of Communication Engineering *Sep. 2025 - Present*

- Advised by Prof. Shao-Hua Sun

B.S. in Electrical Engineering *Sep. 2020 - Jun. 2025*

- Selected Courses: Algorithms, Computer Architecture, Computer Programming, Intro. to Generative AI, VR Game Programming.
- Last-60-credit GPA: 4.24/4.3.

San Diego State University **California, United States**

Exchange Student in Computer Engineering *Jan. - May 2023*

- Selected Courses: Operating Systems, Data Structure, Intro. to AI, Oral Communication.
- Overall GPA: 3.93/4.0

PUBLICATIONS

- **Li-Chun Lu***, Shou-Jen Chen*, Tsung-Min Pai, Chan-Hung Yu, Hung-yi Lee, Shao-Hua Sun, "LLM Discussion: Enhancing the Creativity of Large Language Models via Discussion Framework and Role-Play," in *Proceedings of the Conference On Language Modeling (COLM)*, 2024.
- **Li-Chun Lu**, Miri Liu, Pin-Chun Lu, Yufei Tian, Shao-Hua Sun, Nanyun Peng, “Rethinking Creativity Evaluation: A Critical Analysis of Existing Creativity Evaluations,” *preprint*, 2025.
- Tsung-Min Pai, Jui-I Wang, **Li-Chun Lu**, Shao-Hua Sun, Hung-Yi Lee, Kai-Wei Chang, “BILLY: Steering Large Language Models via Merging Persona Vectors for Creative Generation,” *preprint*, 2025.
- Chien-yu Huang et al., "Dynamic-SUPERB Phase-2: A Collaboratively Expanding Benchmark for Measuring the Capabilities of Spoken Language Models with 180 Tasks," in *Proceedings of the Thirteenth International Conference on Learning Representations (ICLR)*, 2025.
- Yu Lun Hsu, Chien-Ting Lu, **Li-Chun Lu**, Chih-Heng Tam, Yu-Chieh Sun, Ting-Kang Wang, "AnimalSense: Understanding Beyond-human Sensory Capabilities of Animals via VR Games," in *Student Game Competition (SGC) of the Conference on Human Factors in Computing Systems (CHI)*, 2024. (Runner-Up Award.)
- Pin-Chun Lu, Che-Wei Wang, Yu Lun Hsu, Alvaro Lopez, Ching-Yi Tsai, Chiao-Ju Chang, Wei Tian Mireille Tan, **Li-Chun Lu**, Mike Y Chen, "VeeR: Exploring the Feasibility of Deliberately Designing VR Motion that Diverges from Mundane, Everyday Physical Motion to Create More Entertaining VR Experiences," in *Proceedings of the Conference on Human Factors in Computing Systems (CHI)*, 2024.

RESEARCH EXPERIENCE

Robot Learning Lab (RLL), NTU **Taipei, Taiwan**

PhD Student, Research Assistant, Undergraduate Researcher | Advisor: Prof. Shao-Hua Sun *Oct. 2023 – Present*

- Developed a three-phase discussion framework incorporating role-playing techniques for LLM agents, resulting in a 20% increase in their creative performance on 4 benchmarks, including the Wallach-Kogan Creativity Tests and the scientific creativity.
- Devised an LLM evaluation based on 4 metrics of creativity and designed questionnaires to collect more than 1,400 human responses on creativity across these metrics, demonstrating a 0.7 correlation between LLM evaluations and human evaluations.

Peng’s Language Understanding & Synthesis Lab (PLUS), University of California, Los Angeles **California, United States**

Visiting Researcher | Advisor: Prof. Nanyun (Violet) Peng *Nov. 2024 – Apr. 2025*

- Led a project that analyze 4 metrics for creativity evaluation across 3 domains: creative writing, problem-solving, and research ideation, and identified inconsistencies across metrics.
- Diagnosed key limitations of each metric, including lexical bias in the creativity index, sensitivity to overconfidence in perplexity, inability to capture conceptual-level creativity in syntactic templates, and instability and bias in LLM-as-a-Judge.

Deep Learning & Human Language Processing Lab (DLHLP), NTU **Taipei, Taiwan**

Undergraduate Researcher | Advisor: Prof. Hung-yi Lee *Jul. 2023 – Oct. 2024*

- Proposed and processed a dataset, "Third Tone Sandhi Recognition in Mandarin," for Dynamic-SUPERB to evaluate universal speech models, based on the NCCU Corpus of Spoken Taiwan Mandarin dataset.
- Applied the Direct Preference Optimization (DPO) framework in reinforcement learning to train a text-instruction-guided voice conversion model, collaborating with two teammates to enhance its performance.

Human Computer Interaction Lab (HCI), NTU **Taipei, Taiwan**

Undergraduate Researcher | Advisor: Prof. Mike Y. Chen *Aug. 2023 – May. 2024*

- Demonstrated and presented our game at the Student Game Competition (SGC). Implemented three levels of sensation substitution and remapping in a virtual reality game using Unity to enhance human comprehension of animal senses.
- Surveyed prior works, collected, and analyzed Mass Rapid Transit speed data to justify the validation of paper hypotheses and questionnaire design. Designed figures and edited a demo video to visualize paper information using Adobe tools.

TEACHING EXPERIENCE

Seminar, NTU **Taipei, Taiwan**

Teaching Assistant (TA) *Sep. 2025 – Present*

- Coordinate with speakers, assist with hosting talks and Q&A sessions, and manage event logistics and administrative procedures.

Intro. to Generative Artificial Intelligence Course, NTU **Taipei, Taiwan**

Teaching Assistant *Feb. 2024 – Jun. 2024*

- Handled questions during TA hours and via email from 1,000 students and 1,000 auditors, in collaboration with 37 other TAs.
- Designed slides as teaching materials for an assignment, along with an LLM essay evaluation system, helping students practice and understand the concept of prompting, in collaboration with two other TAs.

INTERNSHIP

NTU Y.L. Lin Program, Taiwan FactCheck Center **Taipei, Taiwan**

Collaboration Intern *Dec. 2023 – May 2024*

- Designed an AI Media Literacy Web Game to address misinformation and enhance public understanding of AI.
- Conducted user research via individual interviews with 15 people to improve the interface design, gameflow, and effectiveness.

Solution Engineer Team, Synopsys Taiwan Co. **Hsinchu, Taiwan**

Technical-Engineering Intern *Jul. 2023 – Aug. 2023*

- Completed debugging of four sets of Process Design Kits (PDKs) with a teammate, each encompassing both Schematic-versus-Schematic (SvS) and Layout-versus-Layout (LvL) analyses.
- Utilized Python and TCL programming languages, alongside Custom Compiler, to inspect the callback functions of PDKs.

HONORS & AWARDS

Fellowship, *Graduate Research Fellowship Pilot Program, National Science and Technology Council* *Sep. 2025*

Fellowship, *EECS Top-tier PhD Training Program, NTU* *Sep. 2025*

Scholarship, *Y.L. Lin Program, NTU* *Jun. 2024*

Runner-Up Award, *Student Games Competition, CHI 2024* *May 2024*

ACADEMIC SERVICES

Volunteer, *Diversity, Equity and Inclusion (DEI) Scholarship Program, COLM* *Oct. 2024*

Reviewer, *Spoken Language Technology Workshop, IEEE* *Jul. 2024*

SKILLS

- **Spoken Language**: English(Fluent), Mandarin(Native), Taiwanese(Native)
- **Programming Language**: Python, C++, TCL, HTML/CSS