# LI-CHUN (PHOEBE) LU

## **EDUCATION**

#### **Electrical Engineering, National Taiwan University (NTU)**

Taipei, Taiwan

Bachelor of Science in Engineering

Sep. 2020 - Jun. 2025

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

#### Computer Engineering, San Diego State University

California, United States

Exchange Student 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.
- 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

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

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.

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**

## Intro. to Generative Artificial Intelligence Course, NTU

Taipei, Taiwan

Teaching Assistant (TA)

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.

#### **AWARDS**

Fellowships, Y.L. Lin Program, NTU	Jun. 2024
Runner-Up Award, Student Games Competition, CHI 2024	May 2024
Outstanding Service Award, Department of Electrical Engineering, NTU	Dec. 2021
Excellence Award, Architecture Video Storytelling Project, Dept. of Architecture at National Cheng Kung University	Feb. 2020
ACADEMIC SERVICES	
Volunteer, Diversity, Equity and Inclusion (DEI) Scholarship Program, COLM	Oct. 2024
Reviewer, Spoken Language Technology Workshop, IEEE	Jul. 2024
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#### **SKILLS**

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