LI-CHUN (PHOEBE) LU

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EDUCATION

Electrical Engineering, National Taiwan University (NTU) **Taipei, Taiwan**
Bachelor of Science in Engineering *Expected Graduation: Sep. 2020 - Jun. 2025*
- Last-60-credit GPA: 4.16/4.3.

Electrical and Computer Engineering, San Diego State University **California, United States**
Exchange Student *Jan. - May 2023*
- Selected Courses: Operating Systems, Introduction to Artificial Intelligence (AI), Oral Communication
- Overall GPA: 3.93/4.0

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 four benchmarks, including the Wallach-Kogan Creativity Tests and the Scientific Creativity Test.
- Devised an LLM evaluation mechanism 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.

Deep Learning Human Language Processing Lab (DLHLP), NTU **Taipei, Taiwan**
Undergraduate Researcher | Advisor: Prof. Hung-yi Lee *Jul. 2023 – Present*
- 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.
- Apply Direct Preference Optimization (DPO) reinforcement learning, aiming to improve a text-instruction-guided voice conversion in collaboration with two other teammates.

Human Computer Interaction Lab (HCI), NTU **Taipei, Taiwan**
Undergraduate Researcher | Advisor: Prof. Mike Chen *Oct. 2023 – Feb. 2024*
- Demonstrated and presented our game as one of the two presenters at the Student Game Competition (SGC). Implemented three levels of sensation substitution and sensation 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

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.

PAPERS

- **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," Conference On Language Modeling (COLM), 2024. 📄
- 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," SGC of the CHI Conference on Human Factors in Computing Systems, 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," Proceedings of the CHI Conference on Human Factors in Computing Systems, 2024. 📄

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.