Timothy Liu

Fluent in English, Mandarin, Python, and GPT-ese
Proficient in French

Github: https://github.com/timo-liu
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Research

Graduate Student Researcher | UC Davis Computational Linguistics Lab   **2024 - Present**
- Researching the application of psycholinguistic models on the performance of Large Language Models
- Advised by Dr. Kenji Sagae

Research Assistant | UC Davis Neurolinguistics Lab   **2023 - Present**
- Applying and documenting novel Python machine learning regression analysis techniques to psycholinguistic data.
- Researching ERP responses to haptic stimulation in children with cochlear implants.
- Designing all hardware and software for experiment, and organized a team of undergraduate students
- Advised by Dr. David Corina

Honors Thesis in Cognitive Science   **June 2024**
- From Bass to Bass: Phonological Priming as a Route to Heteronyms
- Advised by Dr. Kenji Sagae and Dr. David Corina

Annual Psychology Conference @ UC Davis   **May 2024**
- When to Call it Quits: An Agent-Based Modeling Approach to Group Work
- Advised by Dr. Sydney Wood and Dr. Jeffrey Schank

Undergraduate Research, Scholarship and Creative Activities Conference   **April 2024**
- Electrophysiological Study of Haptic Stimulation: Implication for Cross-Modal Plasticity
- Advised by Dr. David Corina

Education

University of California, Davis   **September 2024 - Expected (06/29)**
Program: PhD in Linguistics
Advisor: Dr. Kenji Sagae

University of California, Davis   **Graduated June 2024**
Major: B.S. in Computational Cognitive Science | GPA: 3.891 | Summa Cum Laude
Minor: Computer Science

Projects

eng-syl (https://pypi.org/project/eng-syl/)   **2023**
- Accurately syllabifies English orthography(F-score - 0.91), accurately extract relevant graphemes.
- Generates plausible broad transcriptions for English words and out-of-dictionary pseudowords.
- Skills: Recurrent Neural Networks, Tensorflow

Echo-state Stock Bot (AI course final project)   **2023**
- Developed backend for a stock prediction bot with more predictive power than ARIMA model.
- Skills: Tensorflow, Echostate Networks

Selected Awards

Glushko Prize   **2024**
- Award in Cognitive Science at UC Davis for students demonstrating excellence in research and coursework
- One of three recipients in 2024

UC Davis Departmental Citation in Cognitive Science   **2024**
- Departmental Award for outstanding performance in research and coursework

Publications

T Liu, S Wood, and J. Schank (2024). Calling it Quits: An Agent-Based Modeling Approach to Collaborative Group Work. ACT 2024 (Poster)