Eleanor M. Lin

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Education

Columbia University, Columbia College, New York, NY
Bachelor of Arts, Computer Science & Linguistics; GPA: 4.1 (Expected May 2024)
Relevant Coursework: Machine Learning, Natural Language Processing, Artificial Intelligence

Publications

Eleanor Lin, James Hale, and Jonathan Gratch. 2023. Toward a Better Understanding of the Emotional Dynamics of Negotiation with Large Language Models. To appear in *The Twenty-fourth International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc '23), October 23–26, 2023, Washington, DC, USA.* ACM, New York, NY, USA, 6 pages. https://doi.org/10.1145/3565287.3617637.

Presentations

Columbia University Undergraduate Research Symposium, New York, NY, October 2022. **Lin, E.**, Yang, Z., & Ordóñez, V. "Text-Based Prediction of Visual Complexity: How Does What We See Influence What We Say?" (poster).

Awards

REU Travel Grant, National Science Foundation, 2023 *(Awarded $1200 to attend MobiHoc '23)*
Dean's List, Columbia College, 2020 – Present
NSF Research Experiences for Undergraduates Intern, University of Southern California, 2023
Fulbright-Hays Scholarship (Declined), American Councils for International Education, 2023 *(Awarded $7915 to cover cost of attendance for Taiwan Intensive Summer Language Program)*
Distributed Research Experiences for Undergraduates Intern, Computing Research Association, 2022 *(Awarded $7000 to conduct research at Rice University with Professor Vicente Ordóñez Román)*
Computer Science Research Mentorship Program Scholar, Google, 2021

Research Experience

Columbia University, Department of Computer Science, New York, NY
Research Assistant, January 2022 - Present
Adviser: Julia Hirschberg (Speech Lab)
Investigate relationship between dialog acts and code-switching, by adapting dialog act annotation scheme to better suit, and annotating dialog acts on, code-switched speech. Wrote script to fine-tune Wav2Vec2 for end-to-end dialog act classification on Switchboard Dialog Act Corpus, using PyTorch and Hugging Face Transformers. Contributed to multimodal, multilingual empathetic speech corpus by processing video, audio, text with Jupyter Notebooks, Praat, FFmpeg.

University of Southern California, Institute for Creative Technologies, Los Angeles, CA
Research Experiences for Undergraduates (REU) Intern, May 2023 - August 2023
Adviser: Jonathan Gratch (Affective Computing Lab)
Developed negotiating agent for online studies of human negotiation behaviors. Engineered large language model prompts for agent NLU/NLG with OpenAI API. Built user interface using HTML, CSS, JavaScript, Flask. Assembled Qualtrics survey for crowdworkers to evaluate agent.

Rice University, Department of Computer Science, Houston, TX
Distributed Research Experiences for Undergraduates (DREU) Intern, May 2022 - July 2022
Adviser: Vicente Ordóñez Román (Vision, Language, and Learning Lab)
Quantified visual and linguistic complexity in MSCOCO image captioning dataset by creating and applying novel visual complexity metric, then fine-tuning BERT to predict visual complexity from image captions. Probed and mitigated content-related biases in resulting models.

Columbia University, Department of Computer Science, New York, NY
Data Annotator, October 2021 – December 2021
Adviser: Fei-Tzin Lee (Natural Language Text Processing Lab)
Generated semantic annotations for text generation/summarization in the literary domain.

Columbia University, Department of Human Development, New York, NY
Research Assistant, March 2021 - June 2021
Adviser: Katherine Moore (Corter Lab)
Identified communication strategies in collaborative learning dialogues by annotating speech acts and analyzing n-gram frequencies with R. Assisted with onboarding new research assistants.

Teaching Experience

Columbia LING4903: Syntax, New York, NY
Teaching Assistant, September 2023 - December 2023
Introduction to modern formal theories of syntax. Hold office hours, take attendance, and grade assignments.

Columbia COMS3251: Computational Linear Algebra, New York, NY
Course Assistant, September 2022 - December 2022
Introduction to linear algebra and its applications to data analysis. Hosted weekly office hours, moderated class discussion board, graded homework assignments, proctored final exam.

Columbia COMS1404: Emerging Scholars Program Seminar, New York, NY
Workshop Assistant, September 2021 – May 2022
Facilitated introductory computer science seminar to increase retention of diverse undergraduates. Moderated discussions, took attendance, and emailed weekly announcements.

Skills

Technical: Python (PyTorch, Keras, Hugging Face Transformers), C, Java, Git, Praat, FFmpeg
Languages: Advanced Mandarin Chinese, advanced German, advanced Latin