

# Eleanor M. Lin

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## Education

**Columbia University, Columbia College, New York, NY** September 2020 - May 2024  
 Bachelor of Arts, Computer Science & Linguistics; GPA: 4.1/4.0  
*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

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

## Research Experience

**Speech Lab, Columbia University** January 2022 - Present  
*Research Assistant (Adviser: Professor Julia Hirschberg)* New York, NY

Investigate relationship between empathy and code-switching by detecting empathetic utterances in code-switched speech, using RoBERTa fine-tuned for empathy detection. Investigate relationship between dialog acts and code-switching by developing dialog act annotation scheme for code-switched speech. Fine-tuned Wav2Vec2 for end-to-end dialog act classification on Switchboard Dialog Act Corpus, using PyTorch and Hugging Face Transformers. Processed video,

audio, and text with Python, Praat, and FFmpeg, for multilingual empathetic speech corpus.

**Affective Computing Lab, University of Southern California**

May 2023 - August 2023

REU Intern (Adviser: Professor Jonathan Gratch)

Los Angeles, CA

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.

**Vision, Language, and Learning Lab, Rice University**

May 2022 - July 2022

Visiting Student Researcher (Adviser: Professor Vicente Ordóñez Román)

Houston, TX

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.

**Natural Language Text Processing Lab, Columbia University**

October 2021 – December 2021

Data Annotator (Supervisor: Fei-Tzin Lee)

New York, NY

Generated semantic annotations for text generation/summarization in the literary domain.

**Cortier Lab, Columbia University**

March 2021 - June 2021

Research Assistant (Adviser: Katherine Moore)

New York, NY

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**

September 2023 - December 2023

Teaching Assistant

New York, NY

Introduction to modern formal theories of syntax. Hold office hours, take attendance, and grade assignments.

**Columbia COMS3251: Computational Linear Algebra**

September 2022 - December 2022

Course Assistant

New York, NY

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**

September 2021 – May 2022

Workshop Assistant

New York, NY

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