

THEO ZHANG

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EDUCATION

University of California, Los Angeles (UCLA)

B.S. in Computer Science, GPA: 3.70/4.00

Expected June 2025

- Upsilon Pi Epsilon Computer Science Honor Society Member (2022-present)

Cornell University

Online Certificate in Machine Learning Foundations

August 2023

EXPERIENCE

Speech and Cognitive Development Lab at UCLA

Los Angeles, CA

Research Assistant; Advisor: Meg Cychosz

January 2024 – Present

- Created deep learning classification models (PyTorch, TensorFlow) to analyze infant speech development
- Evaluated the effectiveness of different model architectures for categorizing children's speech maturity level
- Second author on a paper submitted to IEEE International Conference on Acoustics, Speech and Signal Processing, currently under review

UCSF Archives and Special Collections

San Francisco, CA

Senior Data Science Intern and Summer Research Fellow; Advisor: Lisa Nguyen

June 2024 – September 2024

- Evaluated the impact of different optical character recognition (OCR) tools on the digital archival process, including potential biases and silences introduced into datasets that were created with OCR
- Independently authored paper on the impact of OCR biases specific to handwritten documents, available here
- Developed pipelines and datasets for the UCSF Digital Health Humanities Institute to be used in workshops and classes

GumGum

Los Angeles, CA

ML/AI Engineering Intern

August 2023 – December 2024

- Designed sound classification deep learning models (PyTorch) for context-driven ad placement in video-based media
- Expanded GumGum's existing audio processing pipeline to increase product use cases beyond pure speech classification

AskEdith

Santa Clara, CA

Software Engineering Intern

June 2022 – September 2022

- Implemented an SMS and email notification system and an improved file upload system (React.js), improving customer insights when monitoring AI driven data analytics
- Refactored frontend codebase, optimizing backend performance by 50% and increasing readability for documentation
- Resolved over 30 frontend and backend tickets to improve user experience and efficiency of product development

LEADERSHIP

IDEA Hacks 2024 Director

Los Angeles, CA

- Director of the largest hardware hackathon on the West Coast with an attendance of 230+ participants
- Led a team of 20 to secure \$40k in grants and corporate sponsors, manage parts and participants database, create website, and manage event logistics such as venue, judging, catering, workshops, and overseeing over 50 volunteers

IEEE at UCLA

Los Angeles, CA

- President 2024-2025: Directed a team of 28 officers, managed long-term goals and new initiatives, served as the point of contact for school-wide and IEEE Regional and National meetings, and raised funding from UCLA, alumni, and corporations
- External Vice President 2023-2024: Interfaced with IEEE nationally and managed external club relations
- Secretary 2022-2023: Published weekly newsletter to ~850 members, led the Alumni Mentorship Program for 66 members
- Equity, Diversity, and Inclusion Chair 2022-2023: Created Code of Conduct to ensure an inclusive club environment

PUBLICATIONS

Employing self-supervised learning models for cross-linguistic child speech maturity classification Under Review, 2024

Madurya Suresh, **Theo Zhang**, Anne Warlaumont, Kasia Hitczenko, Alejandrina Cristia, Margaret Cychosz

Silence in OCR: What could handwritten documents tell us?

UCSF eScholarship, 2024

Theo Zhang

SKILLS

- Languages:** C/C++, Python, JavaScript
- ML Tools:** scikit-learn, NumPy, pandas, PyTorch, TensorFlow, Keras, matplotlib
- Other:** Git, Linux, React.js, Arduino