## THEO ZHANG

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#### **EDUCATION**

## University of California, Los Angeles (UCLA)

B.S. in Computer Science, GPA: 3.73/4.00

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: Assistant Professor 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
- Co-first author on a paper submitted to Interspeech 2025, 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
- 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 2023

- 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

# Athenic AI San Francisco, 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: Chair of the largest IEEE student branch in the nation with 350+ members, directed a team of 28 officers, raised \$50k (25% increase from the previous year) in funding from UCLA, alumni, and corporations, managed long-term goals and new initiatives, and served as the point of contact for school-wide and IEEE Regional and National
- 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

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

Under Review, 2024

Silence in OCR: What could handwritten documents tell us?

UCSF eScholarship, 2025

Theo Zhang

#### **SKILLS**

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