# 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 artificial intelligence 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 to include the ability to automatically classify non-speech sounds

**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)
- 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