

# Yunting (Heather) Yin, PhD

LinkedIn : <https://www.linkedin.com/in/yunting-yin>  
Github : <https://github.com/Yinsight>

yunyin@cs.stonybrook.edu  
<https://yinsight.github.io>

<b>RESEARCH INTERESTS</b>	<b>Data Science, Speech Processing, Natural Language Processing</b>	
<b>EMPLOYMENT</b>	<b>Earlham College</b> , Richmond, IN <b>Tenure-Track Assistant Professor of Computer Science</b>	July 2024 - Present
<b>EDUCATION</b>	<b>Stony Brook University</b> , Stony Brook, NY <b>Ph.D. in Computer Science</b> Advisor: Steven Skiena Recipient of Chairman's Fellowship and Inclusive Computing Fellowship	Aug 2019 - May 2024 GPA: 3.79/4.0
	<b>Pace University</b> , New York, NY <b>B.S. in Computer Science</b> Graduated with Scholastic Achievement Award and Summa Cum Laude Honors Recipient of Honors College Scholarship and Honors Opportunity Scholarship	Sept 2016 - May 2019 Rank: 1, GPA: 3.98/4.0
	<b>Teaching Faculty at Earlham College</b> - CS 128 Programming & Problem Solving (Lecture & Lab) - CS 355 Computer Game Design - Sample Class "Sorting Algorithms for Faster Computation" for Alumni Homecoming	Fall 2024
	<b>Python Lecturer for Data Science</b> - Taught two lectures for graduate-level data science class to over 200 students.	Fall 2023
<b>TEACHING EXPERIENCE</b>	<b>Teaching Assistant for Computer Networks</b> - Guided students on concepts related to networking configurations, troubleshooting, and simulations.	Summer 2021
	<b>Project Leader for Women in Computer Science</b> - Instructed a group of female STEM students on data science projects and assisted in carrying out experiments.	Spring 2021
	<b>Teaching Assistant for Data Science</b> - Designed diverse data science projects covering a range of data types and analytical approaches including statistical analyses and advanced machine learning techniques. - Assisted in the design and proctoring of exams.	Summer 2020, Fall 2020
	<b>Teaching Assistant for Foundations of Computer Science</b> - Led recitation session to break down complex theoretical problems. - Held regular office hours and offered individualized support to resolve students' queries.	Summer 2020
	<b>Teaching Assistant for Principles of Programming Languages</b> - Supported instruction and addressed specific inquiries related to various programming languages and their unique characteristics.	Fall 2019, Spring 2020
<b>PUBLICATIONS</b>	(★ indicates research outcome with directly supervised undergraduate students)	
	<b>Yunting Yin</b> , Douglas William Hanes, Steven Skiena, and Sean A P Clouston. "Quantifying Healthy Aging in Older Veterans using Computational Audio Analysis", in the Journals of Gerontology: Series A, 2023.	
	Zuhui Wang, <b>Yunting Yin</b> , and I.V. Ramakrishnan. "Enhancing Image-Text Matching with Adaptive Feature Aggregation", ICASSP 2024.	
	★ Charuta Pethe, Bach Pham, Felix D Childress, <b>Yunting Yin</b> , and Steven Skiena. "Prosody Analysis of Audiobooks", submitted to IEEE ICSC.	

★ Bach Pham, JuiHsuan Wong, Samuel Kim, **Yunting Yin**, and Steven Skiena. “Word Definitions from Large Language Models”, under submission.

**Yunting Yin**, and Steven Skiena. “Inferring Age from Linguistic and Verbal Cues in Celebrity Interviews”, 2023 International Conference on Frontiers of Artificial Intelligence and Machine Learning.

Nanjie Deng, Junchao Xia, Lauren Wickstrom, Clement Lin, Kaibo Wang, Peng He, **Yunting Yin**, and Danzhou Yang. “Ligand Selectivity in the Recognition of Protoberberine Alkaloids by Hybrid-2 Human Telomeric G-Quadruplex: Binding Free Energy Calculation, Fluorescence Binding, and NMR Experiments”, in *Molecules* 2019, 24(8), 1574.

## TALKS

- [1] *The Sound of Aging*, SBU Three Minute Thesis Competition, April 2023, Stony Brook University, NY, USA.
- [2] *Inferring Age from Linguistic and Verbal Cues in Celebrity Interviews*, FAIML Conference, April 2023, Online.
- [3] *He Sounded Good Today: Quantifying Healthy Aging in World War II Veterans Using Computational Audio Analysis*, AI in Aging and Age-related Diseases Conference, November 2022, Online.

## WORK EXPERIENCE

**Teaching and Research Assistant, Stony Brook University** Aug 2019 - May 2024  
- Working on various machine learning research projects including vocal aging analysis and forecasting with large language models.

**Math Tutor, Pace University Learning Center** Sep 2018 - May 2019  
- Provided one-on-one and group tutoring sessions for students in algebra, calculus, and statistics to improve comprehension.  
- Worked closely with professors to align tutoring sessions with classroom instruction.

**Web Developer Intern, Overseas Students Services Corp** Oct 2017 - May 2018  
- Designed and coded responsive websites to showcase the company’s range of services.

## TECHNICAL PROJECTS

**Feasibility of Reducing Prescription Drug Cost Through Generic Alternatives**  
Capstone project for Correlation One Data Science for All (DS4A) / Women program, which explores market dynamics of generic vs brand-name prescription drugs.

### How much do people sleep?

Analyzed large-scale Twitter data to get insight into factors affecting how much sleep different populations receive, and how sleeping schedule affects mental health.

### Seatizen App

Developed during MTA hackathon to predict occupancy patterns using historical data and calculate real time passenger count using camera feeds and object identification.

## TECHNICAL SKILLS

**Languages:** Python, Java, C/C++, C#, SQL, R, PHP, JavaScript  
**Tools & Software:** Jupyter, PyCharm, Eclipse, Git, Kaldi, Visual Studio, L<sup>A</sup>T<sub>E</sub>X  
**Libraries:** NumPy, Scikit-learn, NLTK, PyTorch, TensorFlow, Hadoop, React, D3.js

## PROFESSIONAL SERVICES

**Program Committee for Conference:** AAAI  
**Reviewer for Conferences:** NeurIPS, EMNLP, AAAI, AISTATS, PAKDD, AVSS, ICASSP  
**Reviewer for Journals:** Alzheimer’s Research & Therapy, Data Science and Management, Engineering Reports, Neural Computing and Applications, Pattern Recognition  
**Reviewer for Workshops:** UDM-KDD, ICDM-AI4TS, NeurIPS-AI4D3, NeurIPS-TGL, AAAI-ReLM, AAAI-AI4TS, NeurIPS - AI4D3, IJCB-AI4BIO, ICML-FMWild, ICML-AI4MATH  
**Student Representative**, Graduate Curriculum Committee of Stony Brook University Computer Science Department, October 2022 to May 2024.  
**TA Onboarding and Inclusivity Trainer**, Stony Brook University Computer Science Department, June 2022 to October 2022.