Yunting (Heather) Yin

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Github : https://github.com/Yinsight https://yinsight.github.io

RESEARCH INTERESTS

Data Science, Speech Processing, Large Language Models

EDUCATION

Stony Brook University, Stony Brook, NY Aug 2019 - Present (Expected May 2024)
Ph.D. Candidate in Computer Science GPA: 3.79/4.0
Advisor: Steven Skiena
Recipient of Chairman's Fellowship and Inclusive Computing Fellowship

Pace University, New York, NY Sept 2016 - May 2019
B.S. in Computer Science Rank: 1, GPA: 3.98/4.0
Graduated with Scholastic Achievement Award and Summa Cum Laude Honors
Recipient of Honors College Scholarship and Honors Opportunity Scholarship

TEACHING EXPERIENCE

Python Lecturer for Data Science Fall 2023
- Taught two lectures for graduate-level data science class to over 200 students.

Teaching Assistant for Computer Networks Summer 2021
- Guided students on concepts related to networking configurations, troubleshooting, and simulations.

Project Leader for Women in Computer Science Spring 2021
- Instructed a group of students on selecting a data science project to be studied and assisted in carrying out experiments.

Teaching Assistant for Data Science Summer 2020, Fall 2020
- 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.

Teaching Assistant for Foundations of Computer Science Summer 2020
- Led recitation session to break down complex theoretical problems.
- Held regular office hours and offered individualized support to resolve students' queries.

Teaching Assistant for Principles of Programming Languages Fall 2019, Spring 2020
- Supported instruction and addressed specific inquiries related to various programming languages and their unique characteristics.

PUBLICATIONS

Yunting Yin, 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.

Yunting Yin, and Steven Skiena. "Word Definitions from Large Language Models", under submission.

Charuta Pethe, **Yunting Yin**, and Steven Skiena. "Prosody Analysis of Audiobooks", under submission.

Zuhui Wang, **Yunting Yin**, and I.V. Ramakrishnan. "Enhancing Image-Text Matching with Adaptive Feature Aggregation", accepted to ICASSP 2024.

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 Celeberity 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.

POSTERS

[1] *Word Definitions in Large Language Models*, SUNY AI Symposium, October 2023, University of Albany.

[2] *Computational Audio Analysis to Measure Healthy Aging in Elderly Veterans*, Voice AI Symposium, April 2023, Washington D.C.

[3] *Audio Analysis of Healthy Aging in World War II Veterans*, Stony Brook Computer Science Graduate Research Day, October 2022, Stony Brook University.

[4] *Inferring Age from Linguistic and Verbal Cues in Celebrity Interviews*, Text as Data Conference, October 2022, Cornell Tech.

WORK EXPERIENCE

Teaching and Research Assistant, Stony Brook University Aug 2019 - Present
- 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, LaTeX
Libraries: NumPy, Scikit-learn, NLTK, PyTorch, TensorFlow, Hadoop, React, D3.js

PROFESSIONAL SERVICES

Student Representative, Graduate Curriculum Committee of Stony Brook University Computer Science Department, October 2022 to date.
TA Onboarding and Inclusivity Trainer, Stony Brook University Computer Science Department, June 2022 to October 2022.
Reviewer for Conferences: NeurIPS, EMNLP, AAAI, AISTATS, PAKDD
Reviewer for Journals: Alzheimer's Research & Therapy, Data Science and Management, Engineering Reports
Reviewer for Workshops: UDM-KDD, ICDM-AI4TS, NeurIPS-AI4D3, NeurIPS-TGL, AAAI-ReLM, AAAI-AI4TS