

Nitya Thakkar

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EDUCATION

STANFORD UNIVERSITY

Computer Science Ph.D. Candidate

Advisor: James Zou

Research Interests: AI for health & precision medicine

Expected June 2028

BROWN UNIVERSITY

Bachelor of Science (Sc.B.) in Computer Science with Honors

GPA: 3.97/4.0, Magna Cum Laude

May 2023

PUBLICATIONS

- **Nitya Thakkar***, Merzu Belete*, Indu Khatri, Meijian Guan, Yu Sun, Anantharaman Muthuswamy, Iris Kolder, Han Si, David Soong, Brandon W Higgs, Lauren K Brady, James Zou, Sriram Sridhar. Integrated Histopathology-Transcriptomic Biomarker Enhances Survival Prediction in HNSCC Patients Treated with Immunotherapy, *medRxiv*, 2025.
- Federico Bianchi*, Owen Queen*, **Nitya Thakkar**, Eric Sun, James Zou. Exploring the use of AI authors and reviewers at Agents4Science, *arXiv*, 2025.
- **Nitya Thakkar**, Mert Yuksekgonul, Jake Silberg, Animesh Garg, Nanyun Peng, Fei Sha, Rose Yu, Carl Vondrick, James Zou. Can LLM feedback enhance review quality? A randomized study of 20k reviews at ICLR 2025, *arXiv*, 2025.
- Eric Wu, Matthew Bieniosek, Zhenqin Wu, **Nitya Thakkar**, Gregory W. Charville, Ahmad Makky, Christian M. Schürch, Jeroen R. Huyghe, Ulrike Peters, Christopher I. Li, Li Li, Hannah Giba, Vivek Behera, Arjun Raman, Alexandro E. Trevino, Aaron T. Mayer, James Zou. ROSIE: AI generation of multiplex immunofluorescence staining from histopathology images, *Nature Communications*, 16(1), 2025.
- **Nitya Thakkar***, Suchen Zheng*, Hannah L Harris, Susanna Liu, Megan Zhang, Mark Gerstein, Erez Lieberman Aiden, M Jordan Rowley, William Stafford Noble, Gamze Gürsoy, Ritambhara Singh. Predicting A/B compartments from histone modifications using deep learning, *iScience*, 27(5), 2024.
- Sarah Alamdari, **Nitya Thakkar**, Rianne van den Berg, Neil Tenenholtz, Bob Strome, Alan Moses, Alex Xijie Lu, Nicolo Fusi, Ava Pardis Amini, Kevin K Yang. Protein generation with evolutionary diffusion: sequence is all you need, *bioRxiv*, 2023.

AWARDS

National Science Foundation Graduate Research Fellowship

April 2024

Stanford Graduate Fellowship

Sept 2023

Senior Prize in Computer Science

May 2023

- Recipient of the Brown University Senior Prize in Computer Science for excellence in academics and service to the department

CRA Outstanding Undergraduate Researcher Award - Honorable Mention

Jan 2022

RESEARCH EXPERIENCE

Zou Lab, Stanford University

Sept 2023 – Present

PhD Student

Singh Lab, Brown University

Jan 2020 – May 2023

Undergraduate Research Assistant

- Honors senior thesis: developed a graph convolutional neural network trained on gene expression data from patients with Glioblastoma to predict cell state energy and learn the underlying graph structure of the gene-gene interactions
- Co-first author on ENCODE Consortium project, CoRNN, to predict the three-dimensional organization of the genome (A/B compartments) from one-dimensional data (histone modification signals) using deep learning methods; accepted in ACM Conference on Bioinformatics, Computational Biology, and Health Informatics

Biomedical Machine Learning Group, Microsoft Research

May – August 2022

Undergraduate Research Intern

- Advised by Kevin Yang, Ava Amini, and Sarah Alamdari
- Contributed to the conceptualization, development, and analysis of EvoDiff, a diffusion framework for generating proteins from sequence information

Broad Institute of MIT and Harvard

June – August 2021

Undergraduate Research Intern

- Advised by Neriman Tokcan through the Broad Summer Research Program (BSRP)
- Designed an architecture to predict spatial cell interactions in Classical Hodgkin's Lymphoma from gene expression for personalized cancer therapy; presented work at the Annual Biomedical Research Conference for Minority Students in November 2021

TEACHING EXPERIENCE

Stanford University

March – June 2025

- Graduate student instructor for CS 277: Foundation Models for Healthcare
- Responsibilities included designing and grading assignments and holding weekly office hours

Brown University

Jan 2021 – May 2023

- Head Teaching Assistant for Deep Learning (Spring '23): led TA staff of 25 and oversaw all course development
- TA for Deep Learning (Fall '22 and Spring '22), Computer Systems (Fall '21), Linear Algebra (Spring '21)
- Responsibilities included course development, grading problem sets/projects, and holding weekly office hours

GRADUATE COURSEWORK

- CS 224W: Machine Learning with Graphs
- CS 256: Algorithmic Fairness
- BIOMEDIN 223: Deploying and Evaluating Fair AI in Healthcare

VOLUNTEERING

Editor for The Stanford AI Lab Blog

May 2024 – Present

- Edit feature blog posts and compile posts highlighting conference publications by SAIL students

Stanford Future Advancers of Science and Technology

Sept 2024 – March 2025

- Mentored a small group of underrepresented high school students in San Jose biweekly by guiding them in developing and presenting an independent science project