

# Manan Pancholy

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## EDUCATION

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### Brown University

ScB. Artificial Intelligence in Health Informatics

May 2027

Providence, RI

- GPA: 3.96 / 4.00
- Coursework: Self-Supervised Learning (Graduate), Bioinformatics (Graduate), Advanced Deep Learning (Graduate), Computational Linguistics, Physiology, Biochemistry, Organic Chemistry I & II, Data Structures and Algorithms, Statistical Inference I, Linear Algebra

## RESEARCH

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Liu Y, Maeda K, Pancholy MS. PaCX-MAE: Physiology-Augmented Chest X-Ray Masked Autoencoder. Poster accepted at: 43rd International Conference on Machine Learning (ICML) 3rd Annual Workshop on Multi-modal Foundation Models and Large Language Models for Life Sciences; 2026 Jul 11; Seoul, South Korea.

Pancholy MS, Dudzinski DM. Ambient Listening Artificial Intelligence: Technology and Liability Implications. Lecture presented at: American College of Cardiology Medical Professionals Liability Insurance Work Group Meeting; 2024 Nov 15; Virtual.

Pancholy MS, Payne M, Patel AT, et al. Factors Affecting Image Resolution in a Modern Angiographic Suite: A Phantom-Based Study. *Cardiovasc Revasc Med.* 2022;43:55-59. doi:10.1016/j.carrev.2022.05.031

### Ongoing Work

- Curating a multimodal dataset to train neural network for point-of-care insight into acute coronary syndrome
- Assessing social and lifestyle determinants of mental health for 200,000+ Americans in large NIH databases using machine learning

**Certifications:** HSP, GCP, COI, IRB (CITI), Advanced Catalyst Workshop

## PROFESSIONAL EXPERIENCE

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### Brown Center for Biomedical Informatics

Undergraduate Teaching Assistant for BIOL 1555

Jan. 2025 – May 2026

Providence, RI

- Walking 50+ students through code debugging, GitHub troubleshooting, and best programming principles in Julia/Python/Unix/SQL
- Built out JuliaAI programming tutorial page as part of BCBI's CODIAC for Health public coding resource

### National American Association of Physicians of Indian Origin (AAPI)

President (prev. President-Elect)

Jul. 2023 – May 2025

Hybrid

- Established annual nationwide Medical Scholars Summit with 200+ attendees, including premedical students, physicians, & researchers
- Provided Indian premedical students with free Kaplan, UWorld, and Blueprint MCAT resources & seminars through corporate sponsors

### Brown Barsaat

President (prev. Musical Director, Assistant Musical Director), Vocalist

Sep. 2023 – Present

Providence, RI

- Organizing & performing in annual spring show with 100+ regular attendees
- Arranged & conducted original pieces for Brown's premier South Asian fusion A Capella group

## CLINICAL EXPERIENCE

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**Express Urgent Care** - Triage, Medical Translator, Check-In Clerk - 100+ hours volunteering, 100+ patients served

**Observership** - 80+ hours observing primary care, CT surgery, interventional cardiology, ophthalmology, radiation oncology

## PROJECTS

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**AI Note-Writing** | *HuggingFace Transformers, WhisperX, PyTorch, Regex, NEJM CPCs*

Jun. 2024 – May 2025

- Implemented pipeline using open-source transcription + LLM to transform patient encounter audio into structured clinical notes
- Research project inspired by clinical experience of vascular neurologist Dr. Liqi Shu at Rhode Island Hospital

**GraphiStasis:** | *PyTorch Geometric, RDKit, Biopandas*

May 2025

- Trained MLP and GNNs (SAGE, GCN, GAT) to predict epistatic interactions (AUROC > 0.85) using a bipartite gene-disease graph

## TECHNICAL SKILLS

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**Languages:** Python, Julia, R, Stata, Java, SQL, HTML, CSS, JavaScript

**Libraries:** PyTorch (Base, Lightning, Geometric), Tensorflow, Transformers, RDKit, Scikit-learn, Numpy

**Developer Tools:** VS Code, GitHub, WandB, CUDA (DDP)