NAMRATA NADAGOUDA

Ph.D. Candidate, Electrical & Computer Engineering

🌐 https://nnadagouda95.github.io/   in namratanadagouda
🎓 Google Scholar

Georgia Institute of Technology

OVERVIEW

- Ph.D. Candidate specializing in data-efficient models using active learning, human-in-the-loop learning, and preference learning
- Experienced in applying ML to images and time-series data with a strong foundation in both theory and practice

EXPERIENCE

Graduate Researcher
Georgia Tech

📅 Aug 2019 – Present   📍 Atlanta, GA

- Designed Bayesian active-query frameworks using pairwise comparisons for preference, time series & large-scale vision datasets
- Developed unified query framework based on nearest-neighbor queries and a more efficient query synthesis framework
- Implemented active image classification strategies for semi-supervised learning as part of the **DARPA LwLL (Learning with Less Labels)** program

Applied Scientist Intern
Samsara

📅 Summer 2024   📍 San Francisco, CA

- Built active-learning pipeline for traffic-sign detection using dashcam stills, leveraging a pre-trained distilled model for automated data selection and iterative fine-tuning
- Integrated CLIP-based retrieval & Labelbox annotation; delivered reusable pipeline to the ML Science team

PUBLICATIONS

N. Nadagouda & M. Davenport, *Active query generation for preference learning*, WiML Workshop @ NeurIPS 2023. (*Full paper in preparation*)

N. Nadagouda, A. Xu & M. Davenport, *Active metric learning and classification using similarity queries*, UAI 2023.

N. Ahad, **N. Nadagouda**, E. Dyer and M. Davenport, *Active learning for time instant classification*, DMLR Workshop @ ICML 2023.

A. McRae, A. Xu, J. Jin, **N. Nadagouda**, N. Ahad, P. Guan, S. Karnik and M. Davenport, *Delta Distancing: A lifting approach to localizing items from user comparisons*, ICASSP 2022.

G. Canal, M. Connor, J. Jin, **N. Nadagouda**, M. O'Shaughnessy, C. Rozell and M. Davenport, *The Picasso Algorithm for Bayesian Localization Via Paired Comparisons in a Union of Subspaces Model*, ICASSP 2020.

TEACHING & SERVICE

- **Reviewer**: WiML @ NeurIPS (2025, 2024, 2023), AIStats (2021)
- **AWM @ SIAM**: Poster Session Judge & Mentor, 2025
- **Mentor**: ORS undergrads (2018)
- **GTA**: Convex Optimization (2021), Machine Learning (2019), Math Foundations of ML (2018)

EDUCATION

Ph.D. Electrical & Computer Eng.
Georgia Institute of Technology

📅 2019 – 2026 (exp.)   📍 Atlanta, GA

Machine Learning & Signal Processing
Advisor: Dr. Mark Davenport

M.S. Electrical & Computer Eng.
Georgia Institute of Technology

📅 2018 – 2020   📍 Atlanta, GA

ML & DSP

B.Tech. Electrical & Electronics Eng.
National Institute of Technology Karnataka

📅 2013 – 2017   📍 Surathkal, India

TECHNICAL SKILLS

Python (PyTorch, Pandas)   MATLAB
SQL   Labelbox

HONORS & AWARDS

🏆 **2nd place, Presentations**
ML@GT Student Conference, 2025

✈ **Travel Grants**
SIAM 2025, NeurIPS 2023, ICML 2023, UAI 2023, Simons 2022

🏆 **Hacklytics Winner**
Winner, Data-Science Hackathon, 2019

🏆 **Institute Gold Medal**
Top of class at NITK, 2017

TALKS

- **ML@GT Student Conference**: Active query synthesis for preference learning, 2025
- **AWM Workshop at SIAM**: Active query synthesis for preference learning, 2025
- **Samsara**: Active learning for traffic sign detection, 2024
- **Georgia Tech**: Building data efficient models using active learning, 2022
- **Georgia Tech**: Switched Hawkes Processes (Seminar), 2019