# SWATI RAJWAL



#### **EDUCATION**

Emory University, USA

CS PhD, swati.rajwal@emory.edu

Netaji Subhas University of Technology

Master of Technology (M.Tech.) Computer Science

Indira Gandhi Delhi Technical University for Women

Bachelor of Technology (B.Tech.) Computer Science & Engineering

2023 - 2028

CGPA: 3.978/4

2020 - 2022

Dept. Rank 1, Gold Medalist

2014-2018

First Class with Distinction

# ACADEMIC POSITIONS

## Boston Children's Hospital aff. Harvard Med. School

Comp. Health Informatics Program w/ Dr. Majumder

June - Aug 2025

Boston, USA

- \* NLP for social isolation & loneliness in youth using telemental platform data from Talkspace
- \* Explore patterns in polysubstance use and broader substance use trends among young population

# **Emory University Center for AI Learning**

Research Fellow & Lead for AI.Data Lab

Jan - May 2025

Georgia, USA

- \* Collaborated with project sponsors to establish foundational goals & evaluated team deliverables
- \* Helped students on technical and project management skills via mini-lectures and in-person Q&A

# University of Cambridge

Jan - Aug 2023

Engineering Dept., Research Assistant w/ Dr. Mancini

Cambridge, UK

- \* Computationally (Python & RSTAN) processed data recorded from a 3-armed bandit algo-based task
- \* Facilitated EPSRC grant application that awarded our team 1,216,800 CPU & 1,000 GPU hours

## University of Oxford

Saïd Business School, Research Assistant

 $\mathrm{Aug} - \mathrm{Dec}\ 2022$ 

 $Remote,\ UK$ 

- \* Research on the applications of Generative adversarial networks (GANs) in marketing & ads.
- \* Implemented technical architecture for automating image processing using the StyleGAN3 model in Python.

#### **PUBLICATIONS**

- \* Rajwal S et al. Understanding LLMs' Rating Behaviors on Novel Psychoactive Substances. [AMIA'25 Poster]
- \* Das S, Ge Y, Guo Y, Rajwal S, et al. 2-layer RAG for low-resource medical QA using Reddit [JMIR] [AMIA]
- \* Guo Y, Rajwal S, et al. 2023. Generalizable NLP for Migraine Reporting from Social Media. [AMIA] [Code]
- \* Rajwal S, Garg S, Abdel-Salam R, Zayed A. 2025. Do Biased Models Have Biased Thoughts? [COLM][Code]
- \* Rajwal S, Pandey A, et al. 2024. Unveiling Voices: Identification of Concerns in a Social Media Breast Cancer Cohort via NLP. In CL4Health Workshop at LREC-COLING 2024. [Paper], [Code], [NeurIPS]
- \* Rajwal S, Agichtein E, Sarker A. 2024. Knowledge-Enhanced Few-Shot In-Context Learning for Medical Error Detection & Correction. In Clinical NLP workshop at NAACL'24. [Paper], [Code]
- \* Romanou A.,...Rajwal S. et al. Evaluating Multilingual Language Understanding w/ Knowledge [ICLR 2025]
- \* Rajwal S, et al. 2024. NLP & LLMs for SDOH: Protocol for Systematic Review. [Paper], [Protocol]

- \* Das S, Walker D, Rajwal S, et al. Self-Harm using sodium nitrite in an online suicide community. [JMIR][Code]
- \* Rajwal S. 2023. LiHiSTO: A Comprehensive List of Hindi Stopwords. Springer. [Paper], [Code]
- \* Rajwal S. 2023. Design of a Chatbot for Children Based on Emotional Intelligence. [Paper]
- \* Rajwal S & Aggarwal S. 2023. CNN-Based EEG Signal Analysis: A Systematic Review. [Paper]
- \* A bi-directional learning framework for AI analysis in global digital health. MEDINFO'25. [Poster]

#### WORKING PAPERS

- \* Pandey A., Rajwal S., 2025. Ethical judgment of LLMs in financial market abuse (under review ACM ICAIF)
- \* Walker D., Love J., Rajwal S., et al. 2025. CARE-SD to assess stigmatizing & doubt-markers in EHR. [arXiv]
- \* Zheng X, Rajwal S et al. 2024. Short-term variability of chronic musculoskeletal pain. [medRxiv], [Pyschopy]
- \* Rajwal S. 2024. Decade of NLP in Chronic Pain: A Systematic Review. [arXiv]
- \* Byun G, Rajwal S, Choi J.D. 2025. LLM-as-a-TA: Open-Source Grading Toolkit [under review at ACL SRW]
- \* Ge, Y.,..., Rajwal S., et al. 2025. Hierarchically-Informed Data Generation for Biomedical NER. [arXiv]
- \* The Unreasonable Benchmark. under review at NeurIPS 2025.
- \* C4AI. 2025. Kaleidoscope: In-language Exams for Massively Multilingual Vision Evaluation. [arXiv]
- \* Walker D, Rajwal S, et al. 2025. Identifying Social Isolation in NVDRS Narratives. [arXiv]
- \* Peddireddy S, Rajwal S, et al. 2025. Substance Use Among Homicide Suspects: Analysis of NVDRS Narratives
- \* Walker D., Leung J., Alagappan A., Rajwal S. et al. Centering Patient Voices in Lupus Pain. [under review]

# REVIEWING ACTIVITIES

- \* AMIA 2025: Informatics Summit, Clinical Informatics Conference, Annual Symposium
- \* American Public Health Association (APHA) annual meeting 2025
- \* IEEE EMBS Int'l Conf. on Biomedical and Health Informatics (BHI) 2025
- \* 13<sup>th</sup> International Conference on Learning Representations (ICLR) 2025
- \* WiML workshop co-located with NeurIPS in 2024 (Canada) and 2021 (Virtually)
- \* Journal of the American Medical Informatics Association (JAMIA) 2024
- \* Co-organizer at the 9<sup>th</sup> SMM4H (ACL 2024) and 10<sup>th</sup> SMM4H (ICWSM 2025)
- \* MEDIQA-CORR@ ClinicalNLP (NAACL) 2024
- \* Co-reviewer: CL4Health@NAACL'25, AIME'25, IEEE BIBM'24

## **SCHOLARSHIPS**

- \* Emory LGS professional development funds awardee 2025 (Boston, 2025)
- \* WiML NeurIPS Travel Fund by NSF (Canada, 2024)
- \* Scholarship approved to participate in 4<sup>th</sup> Annual Stanford AI+HEALTH conference (Virtual, 2024)
- \* Emory Women in Natural Sciences Fellowship for PhD (Georgia, 2023-25)
- \* Vice Chancellor's Gold Medalist (2023)
- \* AICTE Post Graduate scholarship by Govt. of India (New Delhi, 2020-22)

\* AI Education Foundation travel grant to present at Mediterranean ML Summer School (Italy, 2022)

# MAGAZINE ARTICLES

- \* The Art of Understanding and Connecting with Your Future Professor (2025). ACM XRDS
- \* A computer scientist's role in Neuroscience (2024). Women in Neuroscience UK
- \* The truth about multitasking in humans (2022). IEEE Magazine
- \* The do's & don'ts of writing a research request email (2022). ACM XRDS

#### INDUSTRY EXPERIENCE

## **Eaton Corporation**

Associate Software Engineer, Full Time

Pune, India 2018 - 2020

#### Accenture Research Lab

Innovations for Sustainability, R&D Senior Analyst Intern

Bangalore, India Feb - Aug 2022

#### **EXTRA-CURRICULAR**

- \* Jones Program in Ethics Laney Graduate School Ambassador (2025); CSI PhD Ambassador (2024–25)
- \* NSF AI Institute for Societal Decision Making Student Leadership Council (SLC)
- \* Project lead at Cohere labs, open source community
- \* Mentor at Emory University Association of Women in Science 2023-2024
- \* Accepted to the 2025 Summer School in Responsible AI and Human Rights, Mila
- \* Member and Mentor at Rewriting the Code since 2019
- \* Published an Amazon Alexa Skill for Alexa enabled devices
- \* Selected as Google's Women Techmakers Ambassador in the Cohort of 2022

#### RELEVANT COURSEWORK

- \* BMI-500: Intro. to Ethical Data Science & Informatics (Profs. Gari Clifford, Matthew Reyna)
- \* BMI-510: Biostatistics for ML (Prof. McKay); BMI-550: Applied Biomedical NLP (Prof. Sarker)
- \* CS-557: AI; CS-572: Information Retrieval (Prof. Eugene Agichtein)
- \* CS-571: NLP (Prof. Fei Liu); CS-534: ML (Prof. Joyce Ho)

# TEACHING EXPERIENCES

- \* CS-329: Computational Linguistics w/ Prof. Jinho Choi (Emory, Spring 2025)
- \* CS-534: Machine Learning w/ Prof. Agichtein (Emory, Fall 2024)
- \* CS-325: Artificial Intelligence w/ Prof. Agichtein (Emory, Spring 2024)

## SESSIONS CONDUCTED

- \* Hosted a session with Dr. Alpana Dubey (Sr. Tech. Researcher) to discuss R&D career
- \* Text Classification: Predicting 'Good' or 'Bad' Statements using NLP at Deeplearning.ai platform
- \* Demonstrated a chatbot application using Dialogflow, flask, and Python at Deeplearning ai session
- \* Customer churn prediction model in Python using Azure ML as Microsoft Learn Student Ambassador