# 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 & Harvard Medical School

[Upcoming] Computational Health Informatics and AI Intern w/ Dr. Majumder

June - Aug 2025 Boston, USA

## **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

Engineering Dept., Research Assistant w/ Dr. Mancini

Jan - Aug 2023

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

Aug - 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, 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]
- \* Das S, Ge Y, Guo Y, **Rajwal S**, et al. 2024. Two-Layer Retrieval-Augmented Generation Framework for Low-Resource Medical Question Answering Using Reddit Data: Proof-of-Concept Study. JMIR. [Paper]
- \* Rajwal S, et al. 2024. NLP & LLMs for SDOH: Protocol for Systematic Review. [Paper], [Protocol]
- \* Guo Y, Rajwal S, et al. 2023. Generalizable NLP for Migraine Reporting from Social Media. [AMIA], [Code]
- \* Das S, Walker D, **Rajwal S**, et al. 2024. Emerging Trends of Self-Harm Using Sodium Nitrite in an Online Suicide Community: Observational Study Using NLP Analysis. JMIR Mental Health. [Paper], [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]

#### **PREPRINTS**

- \* Rajwal S, Garg S, et al. 2025. Do Biased Models Have Biased Thoughts? [under review at COLM]
- \* 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]
- \* Ge, Y.,..., Rajwal, S., et al. 2025. Hierarchically-Informed Data Generation for Biomedical NER. [arXiv]
- \* C4AI. 2025. Kaleidoscope: In-language Exams for Massively Multilingual Vision Evaluation. [arXiv]
- \* Rajwal S, Pandey A, et al. 2025. Understanding LLMs' Rating Behaviors on Novel Psychoactive Substances using Reddit. [under review at AMIA 2025]

## **SCHOLARSHIPS**

- \* WiML NeurIPS Travel Fund by NSF (Canada, 2024)
- \* Family Process Institute New Writers Fellowship (USA, 2025)
- \* Scholarship approved to participate in 4<sup>th</sup> Annual Stanford AI+HEALTH conference (Virtual, 2024)
- \* Emory Women in Natural Sciences Fellowship for PhD (USA, 2023)
- \* AI Education Foundation travel grant to present at Mediterranean ML Summer School (Italy, 2022)
- \* Govt. of India AICTE Post Graduate scholarship (India, 2020-22)

#### 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**

Pune, India

Associate Software Engineer, Full Time

2018 - 2020

- \* Spearheaded R&D team to finalize lab layout for Software validation & Root cause analysis (RCA)
- \* Implemented Google smart home intents to provide user control of Eaton devices via voice commands. [App]

### Accenture Research Lab

Bangalore, India

Innovations for Sustainability, R&D Senior Analyst Intern

Feb - Aug 2022

- \* Designed and developed a mechanism to determine and measure the frugality of a software solution
- \* Frugal factors considered are affordability, simplicity, quality, sustainability, security, and accessibility

## REVIEWING ACTIVITIES

- $\ast~13^{\rm th}$  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

- \* AMIA 2025 Informatics Summit and Clinical Informatics Conference
- \* 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

## EXTRA-CURRICULAR

- \* Emory CSI PhD Ambassador 2024-25
- \* Project lead at Cohere for AI open source community
- \* Mentor at Emory University Association of Women in Science 2023-2024 Mentorship Program
- \* Member and Mentor at Rewriting the Code since 2019
- \* Member of Cohere For AI Open Science Community and Global Exam project contributor
- \* Published an Amazon Alexa Skill for Alexa enabled devices
- \* Selected as Google's Women Techmakers Ambassador in the Cohort of 2022
- \* Authored technical articles for Towards Data Science, Geek Culture, & AV Data Science Blogathon 10, 13, 15
- \* Amongst the Top 25 Winners at 2021 edition of Microsoft Azure Developer Stories contest

#### RELEVANT COURSEWORK

- \* BMI-500: Intro. to Ethical Data Science & Informatics (Profs. Gari Clifford and Matthew Reyna)
- \* BMI-510: Biostatistics for Machine Learning (Prof. J Lucas McKay)
- \* BMI-550: Applied Biomedical Natural Language Processing (Prof. Abeed Sarker)
- \* CS-557: Artificial Intelligence; CS-572: Information Retrieval (Prof. Eugene Agichtein)
- \* CS-571: Natural Language Processing (Prof. Fei Liu)
- \* CS-534: Machine Learning (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
- \* Application of Reinforcement Learning in Financial Markets: build a Self-Learning Trading Agent w/ Azure
- \* Getting Started with MS Azure: Hands-on for various AI APIs using Microsoft's Intelligent Kiosk platform.