Ankit Aich

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🎓 Education

2020 – present Chicago, USA	**PhD in Computer Science,** *University of Illinois* • Research in Computational Social Science, NLP in Healthcare & Applied AI • Dissertation - Towards Unifying Psycholinguistic Healthcare and NLP • Proposal - The Bridge between Clinical Psycholinguistics and Natural Language Processing • Qualifier - Understanding the Current State of Mental Health Research in Computer Science
2022 Chicago, USA	**MS in Computer Science,** *University of Illinois* • MS Thesis - The Fortes and Fallacies of Misinformation Detection Systems • Courses - Statistical NLP, Deep Learning, Big Data Analysis
2018 Kolkata, India	**B.Tech in Information Technology,** *West Bengal Univ of Technology* • Thesis - Prediction of Protein Interactions using Machine Learning • Courses - Discrete Math, Image Processing, Object Oriented Programming

💼 Professional Experience

05/2023 – 08/2023 Cambridge, USA	**Amazon Alexa,** *Applied Scientist - II, Intern* • Working on Deep Generative AI for Action Grounding. • Deploying massive language models for cross-lingual and multi-lingual task setups. • Working to make Alexa inclusive with support for many languages
01/2023 – 05/2023 Chicago, USA	**University of Illinois - Department of CS,** *Instructor of CS* • Instructor for CS 421 Natural Language Processing. • Graduate course for Masters of Engineering students.
01/2020 – present Chicago, USA	**University of Illinois - NLP Lab,** *Research Assistant* • Research in Language variation across neurotypical and neurodivergent populations. • Research in Misinformation detection, generative modeling, and low resource languages. • Data Analysis and building SOTA datasets on Mental Healthcare, Fake News. • Running user studies with controlled settings for computational social science.
06/2022 – 08/2022 Chicago, USA	**University of Illinois - Graduate College,** *Graduate Teaching Consultant* • Creation, deployment, and innovation of all course materials and training materials to train incoming teaching assistants. • Workshop creator and leader for grad TA orientation and mentoring.
01/2020 – 12/2021 Chicago, USA	**University of Illinois - Department of CS,** *Teaching Assistant* • Teaching Asst. for Object-Oriented Software Design, Programming Language Design • 1-1 guidance for Maven, SQL, Swing, JavaFX, UX Design
06/2021 – 08/2021 Chicago	**University of Illinois - Department of CS,** *Course Builder* • Created the CS-421 Intro to NLP Course. • Created assignments and tutorials for students • Redesigned projects and grading schema.
08/2018 – 08/2019 Rochester, USA	**Rochester Inst. Of Technology,** *Research Assistant Intern* • Deployed an active learning framework with bayesian optimization on Gaussian Processes to model human hearts from EKG signals • Created feature extraction pipelines using PCA and Variational Autoencoders to viz latent spaces of clinical data • Created 3D to 1D DeepNets for modeling human irises to aid eye tracking beyond SIFT and SURF
03/2016 – 06/2016 India	**Unacademy,** *Educator Intern* • Instructor for India's largest online education initiative. • Instructor for functional English grammar usage and understanding. • The course had 11000+ enrollments and a 4.8/5 rating.
03/2016 Kolkata, India	**Substitute Instructor of Computer Science,** *St. Thomas College of Engineering and Technology* • Delivered lectures on Object-Oriented Programming in Java. • Lectures were delivered to sophomore undergraduates.

📖 Publications

Towards Intelligent Clinically-Informed Language Analyses of People with Bipolar Disorder and Schizophrenia
Ankit Aich, Avery Qunyh, Varsha Badal, Amy Pinkham, Philip Harvey, Colin Depp, Natalie Parde. Findings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022) in Abu Dhabi, UAE. December 7-11 2022.

Demystifying Neural Fake News via Linguistic Feature-Based Interpretation
Ankit Aich, Souvik Bhattacharya, and Natalie Parde. To appear in the Proceedings of the 29th International Conference on Computational Linguistics (COLING 2022). Gyeongju, Republic of Korea, October 12-17, 2022.

Are You Really Okay? A Transfer Learning-based Approach for Identification of Underlying Mental Illnesses
Ankit Aich and Natalie Parde. In the Proceedings of the 2022 Workshop on Computational Linguistics and Clinical Psychology (CLPsych 2022) in conjunction with the North American Chapter of the Association for Computational Linguistics (NAACL). Seattle, Washington, July 15, 2022.

Telling A Lie: Analyzing the Language of Information and Misinformation during Global Health Events
Ankit Aich and Natalie Parde. In the Proceedings of the 2022 Language Resources and Evaluation Conference (LREC 2022). Marseille, France, June 20-25, 2022.

TweetTaglish: A Dataset for Investigating Tagalog-English Code-Switching
Megan Herrera, **Ankit Aich,** and Natalie Parde. In the Proceedings of the 2022 Language Resources and Evaluation Conference (LREC 2022). Marseille, France, June 20-25, 2022.

A Scaled Conjugate Gradient Back-propagation Algorithm for Keyword Extraction
Ankit Aich, Amit Dutta, and Aruna Chakraborty. A Scaled Conjugate Gradient Backpropagation Algorithm for Keyword Extraction. In: Bhateja, V., Nguyen, B., Nguyen, N., Satapathy, S., Le, DN. (eds) Information Systems Design and Intelligent Applications. Advances in Intelligent Systems and Computing, vol 672. Springer, Singapore. https://doi.org/10.1007/978-981-10-7512-4_67

A Crawler-Parser based Approach to Newspaper Scraping and Reverse Searching of Articles
Ankit Aich, Amit Dutta, and Aruna Chakraborty. A Crawler–Parser-Based Approach to Newspaper Scraping and Reverse Searching of Desired Articles. In: Satapathy, S., Tavares, J., Bhateja, V., Mohanty, J. (eds) Information and Decision Sciences. Advances in Intelligent Systems and Computing, vol 701. Springer, Singapore. https://doi.org/10.1007/978-981-10-7563-6_15

🎓 Publications in Review

On the Relevance of Modern NLP in Clinically Enriched Healthcare Settings,
Ankit Aich, Baris Karacan, Colin Depp, Amy Pinkham, Phil Harvey, and Natalie Parde. In COLING 2024

The Fallacies of Healthcare NLP in the Era of Large Language Models,
Ankit Aich, Abari Bhattacharya, and Natalie Parde. In LREC-COLING 2024

Making API Calls Gradually Arduous - External Tool Usage with LLMs,
Ankit Aich, Uday Shah, Mayank Kulkarni. in European Chapter of the ACL (EACL) - 2024

The Doctor's Assistant: A Large Encoder-Decoder based Clinical Interviewer and Annotator,
Ankit Aich, Avery Qunyh, Colin Depp, Amy Pinkham, Phil Harvey, Natalie Parde. in North American Chapter of the ACL (NAACL) -2024

🏅 Awards Won

2022	**Graduate Student Council Travel Award,** *University of Illinois Chicago*	
	• Awarded travel research grant	
2021	**Research Grant - Social Cognition and Suicide in Psychotic Disorders,** *National Institute of Mental Health*	
	• Grant of USD 160,142	
	• Awarded for research on building the first multi-modal mental health clinical dataset.	
	• Principal site RA with Natalie Parde (site PI), Colin Depp, Amy Pinkham, and Philip Harvey.	
	• With UCSD, UMiami, UTDallas, and UIC.	
2018	**Undergraduate Research Grant,** *West Bengal Univ of Technology*	
	• Research Grant of INR 10000 for outstanding research in UX and UI	
2017	**Undergraduate Research Grant,** *West Bengal Univ of Technology*	
	• Research Grant of INR 10000 for outstanding research in applied machine learning	

🏅 Awards Nominated

2022 Chicago, USA	**Laurette Kirsteinn Award For International Grad Students**	
	• Department nominated for award towards international graduate student research and funding	
2021 Chicago, USA	**Provost's Award for Graduate Research**	
	• Nominated award for exceptional research at the doctoral level	

🎓 Invited Talks

2022	**Walking towards Clinically Grounded Real NLP Systems,** *Reveal Brainspace, Chicago*
2022	**What's my Homework? Best Practices to develop and maintain for being an effective TA,** *Graduate College, UIC*
2021	**How to be an Effective Graduate Teaching Assistant,** *Graduate College UIC*
2021	**How to Choose a Research Area in your PhD,** *UIC PhD Graduate College*

🏛 Organizations

2021 – present	**Association for Computational Linguistics,** *Reviewer, Track Committee Member*
	• EACL 2021
	• EMNLP 2021, 2022, 2023

- ACL 2023
- Tracks served
  - Reality Check
  - Computational Social Science & Cultural Analytics
  - NLP Applications
  - Ethics in NLP
  - Natural Language Generation
  - Healthcare in AI & COVID 19

2020 – present	**Association for Computational Linguistics,** *Volunteer*
	• Lead volunteer for EMNLP 2022
	• Volunteer for ACL 2020, ACL 2021, NAACL 2021, NAACL 2022
	• Technical support, on-site presentation support, helpdesk support
2023 – present	**Computational Intelligence,** *Reviewer*
	• Reviewer for Computational Intelligence
	• Areas of Computational Social Science, NLP
2021 – 2022	**Graduate Student Council,** *Primary Departmental Representative for CS*
	• The primary representative for CS graduate school at UIC
	• Responsible for departmental student issues, departmental events, and student awards.
	• Voicing student concerns at the university administrative level.
2023 – present	**American Federation of Teachers,** *Member Organizer*
	• Member organizer for UIC and AFT local 6297

🎓 Academic Service at Graduate Level

2021 – present	**Research Advisor,** *List names all students I have advised as a research mentor*
	• Megan Herrera - Ex intern at Discover - current UIC senior
	• Souvik Bhattacharya - Current MS student at UIC
	• Nimeesa Chan - Current Ph.D. student at Johns Hopkins
	• Nandini Jirobe - Current BS student at UIC
	• Daniyal Siddiqui - Current BS student at UIC

🌐 Languages

English	● ● ● ● ●	Bengali	● ● ● ● ●
Hindi	● ● ● ● ●	Spanish	● ● ● ○ ○
German	● ○ ○ ○ ○ ○		

📄 Professional Certifications

- Data Analysis and Visualzation in R
- Ethical Hacking in Linux Frameworks

⚕ References

Natalie Parde, *Assistant Professor of Computer Science*, University of Illinois Chicago, PhD Advisor
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Barbara Di Eugenio, *Professor of Computer Science*, University of Illinois, Chicago
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Colin A Depp, *Professor of Psychiatry*, University of California, San Diego
cdepp@health.ucsd.edu

✏ Declaration

(C) Ankit Aich - October 2023

Ankit Aich
USA, 10/2023