Changye Li

Department of Biomedical Informatics and Medical Education
University of Washington

changyel@uw.edu
+1 612-594-1880
changyeli.github.io

ACADEMIC APPOINTMENT

2024 - present Postdoctoral Scholar
Department of Biomedical Informatics and Medical Education
University of Washington

2024 - present Data Science Postdoctoral Fellow
eScience Institute
University of Washington

EDUCATION

Ph.D. Institute of Health Informatics, University of Minnesota, 2024

M.S. Department of Computer Science and Engineering, University of Minnesota, 2018

B.S. Department of Economics, University of Minnesota, 2016

B.A. School of Statistics, University of Minnesota, 2016

PUBLICATIONS

Journal Articles

2024 **Li, C.**, Solinsky, J., Cohen, T., Pakhomov, S., "A curious case of retrogenesis in language: Automated analysis of language patterns observed in dementia patients and young children." In: *Neuroscience Informatics* 4.1 (2024), p. 100155. ISSN: 2772-5286. DOI: https://doi.org/10.1016/j.neuri.2023.100155

2024 **Li, C.**, Xu, W., Cohen, T., Pakhomov, S., "Useful blunders: Can automated speech recognition errors improve downstream dementia classification?" In: *Journal of Biomedical Informatics* 150 (2024), p. 104598. ISSN: 1532-0464. DOI: https://doi.org/10.1016/j.jbi.2024.104598

2022 Pradhan, P., **Li, C.**, Shen, Z., Remucal, M., "Comparison of adverse events between COVID-19 and Flu vaccines." In: *Public Health Review* 5.1 (2022)

2021 Guo, Y., **Li, C.**, Roan, C., Pakhomov, S., Cohen, T., "Crossing the "Cookie Theft" corpus chasm: applying what BERT learns from outside data to the ADReSS challenge dementia detection task." In: *Frontiers in Computer Science* 3 (2021), p. 642517

Conference Proceedings

2025 **Li, C.**, Sheng, Z., Cohen, T., Pakhomov, S. V. S., ""Is There Anything Else?": Examining Administrator Influence on Linguistic Features from the Cookie Theft Picture Description Cognitive Test." In: *Proceedings of the Workshop on Cognitive Modeling and Computational*

Linguistics. Ed. by Tatsuki Kuribayashi, Giulia Rambelli, Ece Takmaz, Philipp Wicke, Jixing Li, and Byung-Doh Oh. Albuquerque, New Mexico, USA: Association for Computational Linguistics, May 2025, pp. 91–103. ISBN: 979-8-89176-227-5. URL: https://aclanthology.org/2025.cmcl-1.15/

2025 **Li, C.**, Xu, W., Pakhomov, S., Bradley, E., Ben-Zeev, D., Cohen, T., "Bigger But Not Better: Small Neural Language Models Outperform LLMs in Detection of Thought Disorder." In: *Proceedings of the 10th Workshop on Computational Linguistics and Clinical Psychology (CLPsych 2025)*. Ed. by Ayah Zirikly, Andrew Yates, Bart Desmet, et al. Albuquerque, New Mexico: Association for Computational Linguistics, May 2025, pp. 90–105. ISBN: 979-8-89176-226-8. URL: https://aclanthology.org/2025.clpsych-1.8/

2024 **Li, C.**, Sheng, Z., Cohen, T., Pakhomov, S., "Too Big to Fail: Larger Language Models are Disproportionately Resilient to Induction of Dementia-Related Linguistic Anomalies." In: *Findings of the Association for Computational Linguistics ACL 2024*. Ed. by Lun-Wei Ku, Andre Martins, and Vivek Srikumar. Bangkok, Thailand and virtual meeting: Association for Computational Linguistics, Aug. 2024, pp. 6363–6377. DOI: 10.18653/v1/2024.findings-acl.380. URL: https://aclanthology.org/2024.findings-acl.380

2023 **Li, C.**, Xu, W., Cohen, T., Michalowski, M., Pakhomov, S., "TRESTLE: Toolkit for Reproducible Execution of Speech, Text and Language Experiments." In: *American Medical Informatics Association Informatics Summit* (2023)

2022 **Li, C.**, Knopman, D., Xu, W., Cohen, T., Pakhomov, S., "GPT-D: Inducing Dementia-related Linguistic Anomalies by Deliberate Degradation of Artificial Neural Language Models." In: *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*. Dublin, Ireland: Association for Computational Linguistics, May 2022, pp. 1866–1877. DOI: 10.18653/v1/2022.acl-long.131

Peer-Reviewed Poster

2022 **Li, C.**, Cohen, T., Pakhomov, S., "The Far Side of Failure: Investigating the Impact of Speech Recognition Errors on Subsequent Dementia Classification." In: *Machine Learning for Health* (2022)

2018 **Li, C.**, Levonian, Z., Ma, H., Yarosh, S., "Condition Unknown: Predicting Patients' Health Conditions in an Online Health Community." In: *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing*. 2018, pp. 281–284

Preprints

2024 **Li, C.**, Cohen, T., Pakhomov, S., *Reexamining Racial Disparities in Automatic Speech Recognition Performance: The Role of Confounding by Provenance*. 2024. arXiv: 2407.13982 [cs.CL]. URL: https://arxiv.org/abs/2407.13982

TEACHING

2022 Fall	Teaching Assistant: Python Programming Essentials for the Health Sciences
2021 Fall	Teaching Assistant: Foundations of Biomedical Natural Language Processing
2022 Fall	Instructor: Introduction to GitHub Workshop
2021, 2022	Instructor: Python Programming Workshop

AWARDS

Awards and Honors

2025 Travel Award, Computational Linguistics and Clinical Psychology workshop, NAACL

2024 Outstanding Student Award, Institute of Health Informatics, University of Minnesota

2024 Reviewer Award, AMIA Informatics Summit

SERVICE

Academic Journal Peer Review

Journal of Biomedical Informatics (JBI)

Academic Conference Peer Review

Association for Computational Linguistics (ACL) rolling review; International Joint Conference on Artificial Intelligence (IJCAI), AI for Social Good Special Track; European Chapter of the ACL, Computational Linguistics and Clinical Psychology (CLPsych) Workshop; American Medical Informatics Association (AMIA) Informatics Summit; AMIA Annual Summit; Machine Learning for Health (ML4H)

Conference Activity

2022 Junior chair, Research Roundtable, Machine Learning for Health

2022 Data hackallenge organizer, Association for the Advancement of Artificial Intelligence Conference on Artificial Intelligence (AAAI), International Workshop on Health Intelligence

PROFESSIONAL EMPLOYMENT

2023 Research Intern, Truveta, Bellevue, WA

2017 Digital Data Analyst Intern, Padilla, Minneapolis, MN