

# 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

- 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. 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

## SERVICE

### Academic Journal and 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

## **AWARDS**

### **Awards and Honors**

- 2024 Outstanding Student Award, Institute of Health Informatics, University of Minnesota
- 2024 Reviewer Award, AMIA Informatics Summit

## **PROFESSIONAL EMPLOYMENT**

- 2023 Research Intern, Truveta, Bellevue, WA
- 2017 Digital Data Analyst Intern, Padilla, Minneapolis, MN