Joyce Zhou

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thttps://cephcyn.github.io

Education

2021 - · · · · Ph.D., Cornell University - Computer Science, intended minor Informatics

Research interests: human-AI collaboration, explanations and interpretability, fairness and trust, AI use ethics

Thesis: An Interactive UI to Support Sensemaking over Collections of Parallel Texts [o].

Advisor: Prof. Dan Weld

2016 – 2019 De B.S., University of Washington Seattle - Computer Science, minor Mathematics

Thesis: Finding and evaluating RNA motifs with CMfinder [2].

Advisor: Prof. Larry Ruzzo

Started 2 years early through the Robinson Center UW Academy program.

Research Experience

2020 – 2021 Digital Graduate Researcher with Prof. Elena Glassman (Harvard) and Prof. Dan Weld (UW).

Developed an interactive, human-AI collaborative aggregation and visualization method for sensemaking content in research paper abstracts.

Wrote up methods and design process in Master's thesis (readable as preprint paper) [o].

Mentored by Gagan Bansal and advised by Prof. Dan Weld.

Developed, implemented, and evaluated a novel adaptive explanation style for human-AI teams on a sentiment analysis task. Analyzed participants' feedback on how AI explanations impacted their decision-making. Resulted in 2nd-author CHI publication [1]. Also featured in a WHI 2020 spotlight.

2018 – 2019 Definition Undergraduate Researcher with Prof. Larry Ruzzo (University of Washington)

Developed a set of tools (*blockmerge* and *crosscompare*) and a pipeline centered on CMfinder to search for potentially structured fRNA sequences across alignment block boundaries and cluster found covariance models. Wrote up methods and findings in Bachelor's thesis [2].

Teaching Experience

Taught sections of 20+ students and assisted individual students in office hours.

Wrote and reviewed course handouts, homework, and exams.

Graded student programming assignments and exams.

Publications

* denotes equal contribution; + denotes significant contribution

Conference and Journal Papers

[1] G. Bansal*, T. Wu*, **J. Zhou**+, R. Fok+, B. Nushi, E. Kamar, M. T. Ribeiro, and D. S. Weld, "Does the whole exceed its parts? The effect of AI explanations on complementary team performance", CHI 2021. arXiv: 2006.14779 [cs.AI]. [Online]. Available: https://arxiv.org/abs/2006.14779.

Preprints

- [o] **J. Zhou**, E. Glassman, and D. S. Weld, "An interactive UI to support sensemaking over collections of parallel texts", Master's thesis, 2021.
- [2] **J. Zhou** and L. Ruzzo, "Finding and evaluating RNA motifs with CMfinder", Bachelor's thesis, 2019, **O** [Online]. Available: https://cephcyn.github.io/pub/2019-bachelors_thesis.pdf.

Honors & Awards

- 2018 Phi Beta Kappa, honor society, top 10%, focus on liberal arts and sciences.