Joyce Zhou

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jyzhou15@cs.washington.edu @cephcyn @cephcyn
https://cephcyn.github.io https://www.linkedin.com/in/cephcyn/

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

2019 – 2021 ▷ **M.S., University of Washington Seattle** - Computer Science
Thesis: *An Interactive UI to Support Sensemaking over Collections of Parallel Texts* [0].
Advisor: Prof. Dan Weld
Cumulative GPA 3.93 / 4.0
Highlighted coursework: Natural Language Processing, Adv. Topics in Human-Computer Interaction, Deep Learning, Social Computing, Operating Systems, Programming Languages, Computer Security

2016 – 2019 ▷ **B.S., University of Washington Seattle** - Computer Science, minor Mathematics
Thesis: *Finding and evaluating RNA motifs with CMfinder* [2].
Advisor: Prof. Larry Ruzzo
Cumulative GPA 3.94 / 4.0, *magna cum laude*, 2x Annual Dean's List
Highlighted coursework: Machine Learning, Software Design & Implementation, Data Structures & Parallelism, Data Visualization, Algorithms, Databases, Systems Programming, Computational Biology
Started 2 years early through the Robinson Center UW Academy program.

Research Experience

2020 – 2021 ▷ **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) [0].

2019 – 2021 ▷ **Graduate Researcher**, Lab for Human-AI Interaction (University of Washington)
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 ▷ **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

2018 – 2021 ▷ **Teaching Assistant**, University of Washington
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.
2021 SU: CSE333 Systems Programming (Cosmo Wang)
2021 SP: CSE374 Programming Tools & Concepts (Dr. Megan Hazen)
2021 WI: CSE417 Algorithms & Computational Complexity (Prof. Robbie Weber)
2019 AU: CSE374 Programming Tools & Concepts (Tyler Pirtle)
2019 SP: CSE369 Introduction to Digital Design (Prof. Justin Hsia)
2019 WI: CSE369 Introduction to Digital Design (Prof. Justin Hsia)
2018 AU: CSE331 Software Design & Implementation (Prof. Mike Ernst)
2018 SU: CSE331 Software Design & Implementation (Leah Perlmutter)

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

[0] **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, [Online]. Available: https://cephcyn.github.io/pub/2019-bachelors_thesis.pdf.

Honors & Awards

2021 ▷ **GFSD fellow** (formerly known as NPSC)

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