Andre Ye

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research interests: human-AI interaction, AI for philosophy + thought

EDUCATION

University of Washington Sep. 2021 - Jun. 2025

B.S., Computer Science. B.A., Philosophy with Honors. Minors: Mathematics, History. Computer Science advisors: Amy X. Zhang, Ranjay Krishna. Philosophy advisor: Rose Novick.

RESEARCH EXPERIENCE

Undergraduate Researcher advised by Amy X. Zhang, Ranjay Krishna Collaborated with PhD students and faculty in the department and beyond to lead projects

in topics spanning computer vision, HCl, and philosophical aspects of Al.

Mentored undergraduate in CS and psychology, Tanisha Deka.

Research Intern advised by Andrew Seagraves

Developed more data-efficient methods for audio transcription model training by designing data 'curricula', yielding up to a 2x speedup.

Research Assistant advised by Behzad Najafian

Developed model architecture, training, and inference specialized for prediction of specialized structures in the kidney.

Social Futures Lab, RAIVN University of Washington Feb. 2022 - Present

Deepgram

Jun. 2022 - Sep. 2022

Najafian Lab UW Medicine

Mar. 2021 - May 2022

SELECTED PUBLICATIONS

Peer-Reviewed *equal contribution

[P1]: **Andre Ye**, Quan Ze Chen, and Amy Zhang. "Confidence Contours: Uncertainty-Aware Annotation for Medical Semantic Segmentation." In the Eleventh AAAI Conference on Human Computation and Crowdsourcing (HCOMP), Nov. 2023. Honorable Mention for Best Paper Award. Delft, Netherlands. <u>arXiv</u>, <u>slides</u>, <u>poster</u>

[P2]: Mark Pock*, **Andre Ye***, Jared Moore. "LLMs grasp morality in concept." NeurIPS Moral Psychology and Moral Philosophy Workshop, Dec. 2023. <u>arXiv</u>, <u>poster</u>

[P3]: Taylor Sorensen, Jared Moore, Jillian Fisher, Mitchell Gordon, Niloofar Mireshghallah, Christopher Michael Rytting, **Andre Ye**, Liwei Jiang, Ximing Lu, Nouha Dziri, Tim Althoff, Yejin Choi. "A Roadmap to Pluralistic Alignment". In the Proceedings of the Forty-first International Conference on Machine Learning (ICML), Jul. 2024. Vienna, Austria. <u>arXiv</u>

[P4]: **Andre Ye**, Jared Moore, Rose Novick, Amy Zhang. "Language Models as Critical Thinking Tools: A Case Study of Philosophers." In the Proceedings of the First Conference on Language Modeling (COLM), Oct. 2024. Philadelphia, Pennsylvania. <u>arXiv</u>

In Submission

[P5]: **Andre Ye**, Sebastin Santy, Jena D. Huang, Amy Zhang, Ranjay Krishna. "Computer Vision Datasets and Models Exhibit Cultural and Linguistic Diversity in Perception." In submission to CVPR 2025. <u>arXiv</u>

[P6]: Kathryn Yurechko*, **Andre Ye***. "Political Autonomy in Social Media". In submission to Sage Journals, Social Media + Society. submitted manuscript

[P7]: Andrew Shaw*, **Andre Ye***, Ranjay Krishna, Amy Zhang. "An Image Generation Interface for Negotiating Social Issues in Visual Representation". In submission to FAccT 2025.

Books

[P8]: **Andre Ye**. *Modern Deep Learning Design and Application Development*. Apress Berkeley (Springer Nature), November 2021. 451 pages. https://doi.org/10.1007/978-1-4842-7413-2.

[P9]: **Andre Ye**, Zian (Andy) Wang. *Modern Deep Learning for Tabular Data*. Apress Berkeley (Springer Nature), December 2022. 842 pages. https://doi.org/10.1007/978-1-4842-8692-0.

TALKS & POSTERS

[T1]: "A Novel Approach to Segment Specialized Annotations in Electron Microscopy Images of Glomerular Podocytes".

25th Undergraduate Research Symposium, May 2022. Talk. slides

[T2]: "Emergent Language: Independent Al Development of a Language-Like Syntax." Discovering Al Conference at the eScience Institute, May 2022; NeuroAl Seattle Meeting, September 2022. Poster.

[T3]: "Confidence Contours: Uncertainty-Aware Annotation for Medical Semantic Segmentation." 26th Undergraduate Research Symposium, May 2023 (slides); HCOMP 2023 (slides). Talk.

[T4]: "Confidence Contours: Uncertainty-Aware Annotation for Medical Semantic Segmentation." Allen School Undergraduate Research Showcase, May 2023. Poster. <u>poster</u>

[T5]: "LLMs grasp morality in concept." NeurIPS Moral Psychology and Moral Philosophy Workshop, December 2023. Poster. poster

[T6]: "And then the Hammer Broke: Reflections on Machine Ethics from Feminist Philosophy of Science." Pacific University Philosophy Conference, April 2024. Forest Grove, Oregon. Talk.

[T7] "What Philosophy Can Bring to the Study of Al." Ranjay Krishna's group lab meeting, May 2024. Talk. slides

[T8] "Language Models as Critical Thinking Tools: A Case Study of Philosophers", October 2024. Philadelphia, Pennsylvania. Poster.

AWARDS, SCHOLARSHIPS, FELLOWSHIPS

Outstanding Undergraduate Researcher 2024 Finalist, Computing Research Association

2024 Mary Gates Scholar

Phi Beta Kappa member (sponsored by UW Philosophy)

Philosophy Department Outstanding Undergraduate Scholar Award (2024)

Reboot Fellowship 2023 Member

HCOMP 2023 Student Scholarship

NASA 2022 Space Hackathon Global Nominee

Kaggle Master

TEACHING

Teaching Assistant, CSE 160 & 163 (Data Programming Series), CSE 311 (Discrete Math)

5 x TA for Python, data programming, and discrete math courses.

Teaching Assistant, English Composition & Literary Analysis

TA for introductory through intermediate level composition and literary analysis courses. Designed and taught units on critical/cultural and media theory.

Teaching Assistant, Introduction to Machine Learning

TA for TCS' online, nationwide introductory ML course for disadvantaged or underrepresented high schoolers and middle/high school educators.

The Coding School (TCS)

Sep. 2022 - Jun. 2023

Sep. 2022 - June 2024

Allen School of CSE

Mar. 2022 - Present

Robinson Center

VOLUNTEERING & COMMUNITY INVOLVEMENT

Workshops and Conferences

Reviewer: 2024 CSCW, 2023 NeurIPS Moral Psychology & Philosophy Workshop, 2023 ICML AI + HCI Workshop

Volunteer: AGI Conference 2024

Philosophy of Deep Learning, Group Leader

Organized and led small group meetings. Each week, we discuss assigned book excerpts / papers. Encouraged CS students to take interest in philosophy, and vice versa.

Reading Group Coordinator & Web Support

Organized and provided web support for summer reading groups at the Philosophy Dept.

Cofounder, Research Head

Spearheaded and supported research at Interactive Intelligence, a student-run neuroscience and AI research group. Created website, advised ongoing projects, advocated for compute resources (raised >\$25k from the university), helped onboard new students.

Interactive Intelligence

Sep. 2022 - Aug. 2023

Philosophy Department

Jun. 2023 - Aug. 2023

Interactive Intelligence

Jan. 2022 - Jun. 2023

Coronavirus Literature Retrieval Team Member

CoronaWhy

Assisted a large team working on a QA and scientific research retrieval model for COVID-19.

Apr. 2020 - Jun. 2020

OTHER PUBLICATIONS - philosophy, literary analysis, heresy

[P10]: **Andre Ye**. "The Wartime State and the Cigarette: Darkness and Temporality in Pale Horse, Pale Rider." *The Explicator*, Volume 80, Issue 1-2, pp. 30-33. Apr. 2022. https://doi.org/10.1080/00144940.2022.2063706

[P11]: **Andre Ye**. "And Then the Hammer Broke: Reflections on Machine Ethics from Feminist Philosophy of Science". Pacific University Philosophy Conference, April 2024. Forest Grove, Oregon. Philosophy Conference, April 2024. Forest Grove, Oregon. Philosophy Conference, April 2024. Forest Grove, Oregon.

[P12]: **Andre Ye**. "AyahuascaNet: Rigorously Investigating Hallucination in Large Language Models with Hardcore Psychedelic Drugs". SIGBOVIK 2023. Pittsburgh, Pennsylvania. <u>pdf</u>, <u>viral tweet</u>, RAIVN lab <u>slides</u>