

Pengda Wang

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Education

Rice University

Ph.D. in Industrial Organizational Psychology

GPA: Psychology: 4.0/4.0

Houston, TX

Anticipated: May 2028

Rice University

M.A. in Industrial Organizational Psychology; Qualifying Exams

GPA: Psychology: 4.0/4.0

Houston, TX

Oct 2025

Master Thesis: “I’ve read your stories, I know who you are”: Reliability, validity, and interpretability of generative AI personality ratings

Committee Members: Dr. Frederick L. Oswald (Chair), Dr. Tianjun Sun, Dr. Hanjie Chen

University of Minnesota – Twin Cities

B.S. in Psychology; B.A. in Computer Science

GPA: Psychology: 3.9/4.0; Computer Science: 4.0/4.0

Minneapolis, MN

Sep 2019 – May 2023

Research Interests

1. Personnel selection (e.g., faking, bias, selection experience, ML applications, responsible AI use).
2. Individual differences (e.g., personality traits and facets, dark personalities, social behaviors).
3. Psychometrics & Research methods (e.g., SEM, IRT, computational measurement, big data approaches).
4. Cross-cultural psychology (e.g., measurement invariance, tech-based/large-scale assessments).

Refereed Publications

1. **Wang, P.**, Zou, H., Jiang, H., Chen, H., Sun, T., Yi, X., Xiao, Z., & Oswald, F. L. (2026). Generative personality simulation via theory-informed structured interview. *European Chapter of the Association for Computational Linguistics (EACL)*. <https://doi.org/10.48550/arXiv.2502.12109>
2. Zou, H., **Wang, P.**, Yan, Z., Sun, T., & Xiao, Z. (2025). Can LLM “self-report”? Evaluating the validity of self-report scales in measuring personality design in LLM-based chatbots. *Conference on Language Modeling (COLM)*. <https://doi.org/10.48550/arXiv.2412.00207>
3. **Wang, P.**, Loignon, A. C., Shrestha, S., Banks, G. C., & Oswald, F. L. (2025). Advancing organizational science through synthetic data: A path to enhanced data sharing and collaboration. *Journal of Business and Psychology*, 40(4), 771–797. <https://doi.org/10.1007/s10869-024-09997-w> [**Editor Commendation (top 22 out of 1600 articles)**]
4. **Wang, P.**, Myeong, H., & Oswald, F. L. (2024). On putting the horse (raters and criteria) before the cart (variance components in ratings). *Industrial and Organizational Psychology*, 17(3), 309–313. <https://doi.org/10.1017/iop.2024.16>
5. **Wang, P.***, Xiao, Z.*, Chen, H., & Oswald, F. L. (2024). Will the real Linda please stand up. . . To large language models? Examining the representativeness heuristic in LLMs. *Conference on Language Modeling (COLM)*. <https://doi.org/10.48550/arxiv.2404.01461> [**Oral spotlight presentation (top 2%)**]
6. Myeong, H., **Wang, P.**, & King, E. B. (2024). The weight of beauty in psychological research. *Industrial and Organizational Psychology*, 17(1), 111–114. <https://doi.org/10.1017/iop.2023.87>

Chapters & Technical Reports

1. Sun, T., Xi, M., Sylvara, A., **Wang, P.**, & Ortiz, N. (forthcoming). Artificial intelligence conversational agents at work. In L. Tay, S. E. Woo, & Chekili, A. (Eds.), *AI and the future of work: Insights from organizational psychology and beyond*. Wiley.
2. Pitcher, B. D., & **Wang, P.** (forthcoming). Explainable AI and candidate reactions to AI systems. In Thompson, I., Yankov, G., & Hernandez, I. (Eds.), *AI for IO psychologists: Research and applications*. Oxford University Press.

Selected Pre-prints

1. Xuan, K., **Wang, P.**, Ye, C., Yu, H., August, T., & You, J. (2026). SocialVeil: Probing social intelligence of language agents under communication barriers. *arXiv (Cornell University)*.
<https://doi.org/10.48550/arXiv.2602.05115>
2. Yan, Z., Sylvara, A., **Wang, P.**, Sun, T., & Xiao, Z. (2025). Personality auto-scoring with large language models using a realistic accuracy model of behavioral cues in chatbot interviews. *PsyArXiv*.
https://doi.org/10.31234/osf.io/rtsm5_v1
3. Jiang, H.*, **Wang, P.***, Yi, X., Xie, X., & Xiao, Z. (2025). The incomplete bridge: How AI research (mis)engages with psychology. *arXiv (Cornell University)*. <https://doi.org/10.48550/arXiv.2507.22847>
4. Sylvara, A., **Wang, P.**, Sun, T., Heimann, A. L., & Ingold, P. V. (2025). Automating personality-based employment interviews: Development and validation of an artificial intelligence chatbot. *PsyArXiv*.
https://doi.org/10.31234/osf.io/9ktmf_v3
5. Yang, Y.*, **Wang, P.***, Plonsky, L. D., Oswald, F. L., & Chen, H. (2024). From babbling to fluency: Evaluating the evolution of language models in terms of human language acquisition. *arXiv (Cornell University)*. <https://doi.org/10.48550/arXiv.2410.13259>
6. **Wang, P.**, Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (2024). Not yet: Large language models cannot replace human respondents for psychometric research. *PsyArXiv*.
<https://doi.org/10.31219/osf.io/rwy9b>

Manuscripts Under Revision & Review

1. **Wang, P.**, Chen, H., Oswald, F. L., & Sun, T. (1st revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. [Topic: personalized augmented data generation]. *Assessment*.
2. Sylvara, A., **Wang, P.**, Sun, T., Heimann, A. L., & Ingold, P. V. (3rd revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. [Topic: AI chatbot personality-based employment interview]. *Journal of Occupational and Organizational Psychology*.
3. Xuan, K., **Wang, P.**, Yu, H., August, T., & You, J. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: high fidelity social interaction environment for multi-agents evaluation]. *ICML 2026*.
4. **Wang, P.**, Ortiz, N., Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (1st revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. [Topic: Compare large language models vs. human respondents for psychometric research]. *Psychological Methods*.
5. Yan, Z., Li, Y., **Wang, P.**, Chu, C., Sun, T., Zhang, B., & Xiao, Z. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: Reliability and validity in Human-Computer Interaction research measurements]. *ACM Transactions on Computer-Human Interaction*.
6. Yang, Y.*, **Wang, P.***, Plonsky, L. D., Oswald, F. L., & Chen, H. (under review). TITLE REMOVED FOR BLIND REVIEW. [Topic: Linguistic theory and psycholinguistic theory view of language model development]. *Transactions of the Association for Computational Linguistics*.

Conference Presentations

1. Zou, H., **Wang, P.**, Yan, Z., Sun, T., & Xiao, Z. (2025). Can LLM “self-report”? Evaluating the validity of self-report scales in measuring personality design in LLM-based chatbots. [Poster]. Conference on Language Modeling (COLM 2025), Montreal, QC, Canada.
2. **Wang, P.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (2025). Differential embedding dimension functioning in natural language processing for psychological assessment. [Oral presentation]. International Meeting of the Psychometric Society (IMPS 2025), Minneapolis, MN, United States.
3. **Wang, P.**, & Oswald, F. L. (Co-Chairs) (2025). Bridging Disciplines: How Computer Science and I-O Psychology Benefit Each Other. [Alternative Session Type]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.
4. **Wang, P.**, Zou, H., Yan, Z., Guo, F., Sun, T., Xiao, Z., & Zhang, B. (2025). Not yet: Large language models cannot replace human respondents for psychometric research. In Hickman, L., & Liu, M. (Co-Chairs) (2025). Machine learning for I-O 7.0: Large language models for assessments. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.
5. **Wang, P.**, Sylvara, A., Sun, T., Hebl, M. R., & Oswald, F. L. (2025). Differential embedding dimension functioning in natural language processing for psychological assessment. In Hou, D. X., & Sun, T. (Co-Chairs) (2025). Innovations in AI assessment of individual differences: Improving validity and equity. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2025), Denver, CO, United States.
6. **Wang, P.***, Xiao, Z.*, Chen, H., & Oswald, F. L. (2024). Will the real Linda please stand up. . . To large language models? Examining the representativeness heuristic in LLMs. [Oral presentation]. Conference on Language Modeling (COLM 2024), Philadelphia, PA, United States. [**Oral spotlight presentation (top 2%)**]
7. **Wang, P.**, & Oswald, F. L. (2024). Leveraging synthetic data for advancements in organizational research. In Liou, G., & Tay, L. (Co-Chairs) (2024). Future of performance prediction and evaluation: Artificial intelligence and big data. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2024), Chicago, IL, United States.
8. Wu, F., **Wang, P.**, & Oswald, F. L. (2024). The influence of disability and career challenges on vocational interests. In Hoff, K. A. (Chair) (2024). To RIASEC and beyond: Advances in vocational interest research. [Symposium]. Society for Industrial and Organizational Psychology Annual Conference (SIOP 2024), Chicago, IL, United States.

Selected Works in Progress

1. **Wang, P.**, Chen, H., Luo, J., Oswald, F. L., & Sun, T. (internal review stage). “I’ve read your stories, I know who you are”: Reliability, validity, and interpretability of generative AI personality ratings. [Master Thesis]. Target: *Journal of Personality and Social Psychology*.
2. **Wang, P.**, Sylvara, A., Oswald, F. L., Hebl, M. R., & Sun, T. (internal review stage). Differential embedding dimension functioning in natural language processing for psychological assessment. Target: *Journal of Applied Psychology*.
3. Sylvara, A., **Wang, P.**, Sargent, M., Gregg, E., Heron, X., & Sun, T. (internal review stage). Examining the faking resistance of an AI chatbot personality interview. Target: *Journal of Applied Psychology*.
4. **Wang, P.**, Su, J., Sun, T., & Oswald, F. L. (writing stage). Synthetic text, real insights: Generation, evaluation, and trade-offs in synthetic textual data for organizational research. Target: *Organizational Research Methods*.
5. **Wang, P.**, Xia, H., Chen, H., Sun, T., Behrend, T. S., & Oswald, F. L. (experiment stage). When models miss the shot: Bias in vision-language model performance evaluation. Target: *Science*.

Invited Talks

1. *Psychometric AI: Differential embedding dimension functioning in natural language processing for psychological assessment*. Industrial-Organizational Psychology Research Seminar, Department of Psychological Sciences, **Rice University**, Houston, TX. March 10, 2025.

Media Coverage

1. “SMART lab students share research and industry experiences.” *Rice News*. February 17, 2026. <https://socialsciences.rice.edu/news/-rice-university-social-sciences-smart-lab-students-share-experiences-i-o-psychology>
2. “Could your next job interview be with a chatbot? New study seeks to help bring fairness into AI-powered hiring.” *Rice News*. September 29, 2025. <https://news.rice.edu/news/2025/could-your-next-job-interview-be-chatbot-new-study-seeks-help-bring-fairness-ai-powered>
3. “Are AI chatbot ‘personalities’ in the eye of the beholder?” *ScienceNews*. February 5, 2025. <https://www.sciencenews.org/article/ai-chatbot-personalities>

Awards & Honors

CIISR Graduate Research Fellowship (2025) <i>Rice University</i>	\$1,500
Mortensen Research Award & CLA Research Scholarship (2023) <i>University of Minnesota</i>	\$1,500

Research Grants

Funded

Industry Sponsored Research Grant , Rice University Athletics Partner, 2025–2026 <i>Topic: High-performance sports psychology assessment.</i> PI: Tianjun Sun	\$280,394 <i>Student Collaborator</i>
OpenAI Researcher Access Program , OpenAI, 2024–2025 <i>Topic: LLM emulation of human personality traits.</i> Faculty Co-PIs: Tianjun Sun, Hanjie Chen, Ziang Xiao, Frederick L. Oswald	\$5,000 <i>Student PI</i>

Not Funded

SIOP Small Research Grant , SIOP Foundation, 2026 <i>Topic: Psychometric properties of multimodal large language model-based performance.</i> Co-PIs: Lennie Waite, Tianjun Sun	\$10,000 <i>Student PI</i> Finalist
Google AI for Privacy, Safety, and Security Research Award , Google LLC, 2026 <i>Topic: AI system persuasiveness and addictiveness.</i> Faculty Co-PIs: Hanjie Chen, Tianjun Sun; Student co-PIs: Haotian Xia, Pengda Wang	\$100,000 <i>Student Co-PI</i>

Applied Experience

Google LLC (Incoming Intern) <i>Research Scientist, People Analytic Team</i>	May 2026 – August 2026 <i>Boulder, CO</i>
HITE EQ (Contract) <i>Research Scientist, Individual Differences AI/ML Assessment</i>	January 2026 – Present <i>Chicagoland, IL</i>
Midjourney, Inc (Intern) <i>ML/AI Ph.D. Resident, Psychometric Team</i>	May 2025 – November 2025 <i>San Francisco, CA</i>

Research Experience

Chili Lab Research Assistant <i>Rice University, with Dr. Hanjie Chen</i>	August 2024 – Present <i>Houston, TX</i>
SMART Lab Research Assistant <i>Rice University, with Dr. Tianjun Sun</i>	August 2024 – Present <i>Houston, TX</i>
OWLab Research Assistant <i>Rice University, with Dr. Frederick L. Oswald</i>	August 2023 – Present <i>Houston, TX</i>
CFL Lab Research Assistant <i>University of Minnesota-Twin Cities, with Dr. Gail M. Ferguson</i>	May 2022 – May 2023 <i>Minneapolis, MN</i>
TNT Lab Research Assistant <i>University of Minnesota-Twin Cities, with Dr. Richard N. Landers</i>	April 2021 – May 2023 <i>Minneapolis, MN</i>
Ones' Green Lab Research Assistant <i>University of Minnesota-Twin Cities, with Dr. Deniz S. Ones</i>	June 2020 – July 2022 <i>Minneapolis, MN</i>

Teaching Experience

Teaching Assistant <i>Rice University</i>	Advanced Psychological Statistics (Graduate Level) <i>Houston, TX</i>
Teaching Assistant <i>University of Minnesota-Twin Cities</i>	Computational Linear Algebra (Undergraduate Level) <i>Minneapolis, MN</i>

Service

Industrial and Organizational Psychology (IOP) - Journal Reviewer	2026 - Present
Association for Computational Linguistics Rolling Review (ARR) Reviewer	2025 - Present
Conference on Language Modeling (COLM) Reviewer	2025 - Present
Conference on Neural Information Processing Systems (NIPS) Reviewer	2025 - Present
Society for Industrial and Organizational Psychology Annual Conference (SIOP) Reviewer	2024 - Present
Conference on Human Factors in Computing Systems (CHI) Reviewer	2024 - Present

Professional Affiliations

Academy of Management, *Member*
American Psychological Association, *Member*
Association for Psychological Science, *Member*
Society for Industrial and Organizational Psychology, *Member*

Skills

Languages: Python, R, Java, C, C++, JavaScript, HTML/CSS, SQL,
Developer Tools: Git, Google Cloud Platform, VS Code, PyCharm, IntelliJ, Eclipse
Software: Microsoft Word, Excel, PowerPoint, Access, Google Workspace

Professional References

Dr. Frederick L. Oswald

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Rice University
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Dr. Tianjun Sun

Assistant Professor of Psychological Sciences
Rice University
Email: ts110@rice.edu

Dr. Hanjie Chen

Assistant Professor of Computer Science

Rice University

Email: hc86@rice.edu