

# Pengda Wang

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## Education

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### 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

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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).

## Awards & Honors

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### CIISR Graduate Research Fellowship (2025)

*Rice University*

\$1,500

### Mortensen Research Award & CLA Research Scholarship (2023)

*University of Minnesota*

\$1,500

## Research Grants

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### Funded

#### Industry Sponsored Research Grant, Rice University Athletics Partner, 2025–2026

*Topic: High-performance sports psychology assessment.*

Faculty PI: Tianjun Sun

\$280,394

*Student PI*

#### OpenAI Researcher Access Program, OpenAI, 2024–2025

*Topic: LLM emulation of human personality traits.*

Faculty Co-PIs: Tianjun Sun, Hanjie Chen, Ziang Xiao, Frederick L. Oswald

\$5,000

*Student PI*

### Not Funded

#### SIOP Small Research Grant, SIOP Foundation, 2026

*Topic: Psychometric properties of multimodal large language model-based performance.*

Faculty Co-PIs: Lennie Waite, Tianjun Sun

\$10,000

*Student PI*

Finalist

#### Google AI for Privacy, Safety, and Security Research Award, Google LLC, 2026

*Topic: AI system persuasiveness and addictiveness.*

Faculty Co-PIs: Hanjie Chen, Tianjun Sun; Student Co-PIs: Haotian Xia, Pengda Wang

\$100,000

*Student Co-PI*

#### NeurIPS AI4Science Dataset Proposal Competition, Renaissance Philanthropy, 2025

*Topic: Multimodality individual differences dataset.*

Faculty Co-PIs: Tianjun Sun, Ziang Xiao

\$10,000

*Student PI*

## Refereed Publications

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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

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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

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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](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](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

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1. **Wang, P.**, Chen, H., Oswald, F. L., & Sun, T. (1<sup>st</sup> 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. (3<sup>rd</sup> 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. (1<sup>st</sup> 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*.

## Conference Presentations

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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

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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

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1. *Modeling individual language patterns and psychological constructs to generate AI-augmented data for scalable psychological assessment*. Industrial-Organizational Psychology Research Seminar, Department of Psychological Sciences, **Rice University**, Houston, TX. March 9, 2026.
2. *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

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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>

## Applied Experience

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

## Research Experience

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

## Teaching Experience

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

## Service

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ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) - Reviewer	2026 - Present
Industrial and Organizational Psychology (IOP) - 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

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

## Skills

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

## Professional References

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### Dr. Frederick L. Oswald

Professor of Psychological Sciences; Herbert S. Autrey Chair in Social Sciences  
Rice University  
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### Dr. Tianjun Sun

Assistant Professor of Psychological Sciences  
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**Dr. Hanjie Chen**

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**Dr. Ziang Xiao**

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