Gerard Christopher Yeo

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EDUCATION BACKGROUND

National University of Singapore

Aug 2020-Sep 2024

- Degree: Ph.D. (Data Science)

Major: Data ScienceGPA: 4.50/5.0

- Scholarship: President's Graduate Fellowship

- Main Advisor: Kokil Jaidka, Co Advisor: Mike Cheung Wai Leung, Ex Advisor: Desmond Ong

– Ph.D. Thesis: Cognitive Appraisals in First-Person Consumer Experiences and Third-Person Inferences.

National University of Singapore

Aug 2013-May 2018

- Degree: Concurrent Degree Programme B.Soc.Sci (Hons) and M.Soc. Sci. in Psychology

Major: PsychologyGPA: 4.33/5.0

– Advisor: Ryan Hong

- Master Thesis: Looming Cognitive Style and Its Associations with Anxiety and Depression: A Meta-analysis.

TECHNICAL SKILLS

Computer Languages Proficient: Python, R

Familiar: SQL

Tech Stack LaTeX, Jupyter Notebook (Anaconda), HTML, CSS, Bash/Zsh, Git/GitHub

PyTorch, Scikit-learn, PySpark, Pandas, Dplyr, SPSS, matplotlib

Domain Knowledge Machine Learning, Generative AI, Large Language Models (fine-tuning, prompt

engineering, RAG), Deep Learning, Transformers, Psychology, Cognitive Science Multivariate Data Analysis, Big Data Analytics, Natural Language Processing

WORK EXPERIENCE

NUS Centre for Trusted Internet and Community

Oct 2024-May 2025

Post-Doctoral Research Fellow

- Main Project: Comprehensively modeling consumers' trust in online information dissemination.
- Investigated psychological and social factors influencing consumer trust perception in digital environments.
- Designed a predictive framework (e.g. Neural Networks and Transformers) to analyze the impact of consumer trust on behaviors, including misinformation spread.

National University of Singapore

Aug 2021-Dec 2021

Teaching Assistant

- Conducted tutorials on affect (e.g. emotions) detection, simulating affect in computers, affective theory, psychological aspects of human-computer interaction, and key concepts in machine learning and statistical methods in the affective computing.
- Received award for outstanding teaching (NUS Graduate Student Teaching Awards)

Community Psychology Hub

May 2018-Aug 2020

Research Associate

- Developed and deployed predictive models (e.g., Support Vector Machines, Random Forest) to classify individuals with special needs into appropriate programs at a nationwide scale, leading to improved program
 alignment and enhanced engagement quality, as reported by stakeholders.
- Utilized explainable statistical models (e.g. Regression) to identify key factors influencing individuals with different disabilities, enhancing policy effectiveness.

- Collaborated with diverse stakeholders, including government agencies, to implement predictive models with a focus on fairness and representativeness.
- Led team training sessions on machine learning, statistical analysis, and R programming, enhancing technical proficiency and analytical capabilities.

National University of Singapore

Jul 2017-May 2017

Teaching Assistant

- Conducted tutorials on SPSS, research methods in Psychology and various statistical methods such as General Linear Model, categorical data analysis, and Psychometrics
- Received award for outstanding teaching (NUS Graduate Student Teaching Awards)

Singapore Prison Service, Ministry of Home Affairs Singapore

May 2017-Aug 2017

Data Science Research Intern

- Conducted in-depth research on indicators of correctional success and predictors of re-offending to inform policy and program development.
- Utilized large datasets to apply data-driven feature selection techniques such as Random Forest and Principal Component Analysis (PCA) to identify key features for predicting re-offending.
- Enhanced SPS's predictive models by integrating both theory- and data-driven features, improving the AUROC by 4% in predicting drug re-offending.

ACADEMIC PUBLICATIONS

- (1) Yeo, G., Tan, F., Jaidka, K., Furniturewala, S., Wu, F., Xu, W., Jain, V., Chadha, A., Liu, Y., Ng, S.K. (2025). PHAnToM: Persona-based Prompting Has An Effect on Theory-of-Mind Reasoning in Large Language Models. In *International AAAI Conference on Web and Social Media 2025*.
- (2) **Yeo, G.**, Jaidka, K. (2025). Understanding Annotator Perception: Modeling Psychological Inference from First- and Third-Person Annotation. In 39th Annual AAAI Conference 2025.
- (3) Yeo, G., Furniturewala, S., Jaidka, K. (2024). Beyond Text: Leveraging Multi-Task Learning and Cognitive Appraisal Theory for Post-purchase Intention Analysis. In *Findings of the Association for Computational Linguistics* 2024.
- (4) **Yeo, G. C.**, Ong, D. (2023). A meta-analytic review of the associations between cognitive appraisals and emotions in cognitive appraisal theory. *Psychological Bulletin*.
- (5) Yeo, G. C., & Jadika, K. (2023). The PEACE-Reviews dataset: Modeling Cognitive Appraisals in Emotion Text Analysis. In *Findings of the Association for Computational Linguistics: EMNLP 2023*.
- (6) Yeo, G. C., & Jaidka, K. (2023). Analyzing language for insights into cognitive and social processes. In T. Reimer, L. van Swol., & A. Florack (Eds.), The Routledge Handbook of Communication and Social Cognition. Routledge/Taylor and Francis.
- (7) Lee, S. S., Keng, S. L., **Yeo, G. C.**, & Hong, R. Y. (2021). Parental invalidation and its associations with borderline personality disorder symptoms: A multivariate meta-analysis. *Personality Disorders: Theory, Research, and Treatment.*
- (8) **Yeo, G. C.**, Hong, R. Y., & Riskind, J. H. (2020). Looming cognitive style and its associations with anxiety and depression: A meta-analysis. *Cognitive Therapy and Research*, 44(3), 445-467.

UNDER REVIEW

- Yeo, G. C., & Jaidka, K. (2025). Beyond Emotion Recognition to Reasoning: Using Contextual Cues and Cognitive Appraisals in Large Language Models. Submitted to Association for Computational Linguistics 2025
- Suresh, V., **Yeo, G. C.**, Ong, D. (2024). Critically examining the Domain Generalizability of Facial Expression Recognition models. Submitted to *Transactions on Affective Computing*.
- Yeo, G., Cheung, W.L.M., Jaidka, K. (2024). How You Think Determines Whether You Will Buy-Relationships between Cognitive Appraisals, Emotions, and Behavioral Intentions in Consumption Contexts. Submitted to *Journal of Consumer Psychology*.

RESEARCH WORKS IN PROGRESS

- Yeo, G. C., & Jaidka, K. (2024). Evaluation of Analogical Reasoning in Large Language Models.
- Yeo, G. C., & Jaidka, K. (2025). Understanding Values Structure in Large Language Models Using Value Conflicts.
- Yeo, G. C., & Tan, F. (2024). Personality and Persona Induction in Large Language Models and their Effects on Empathy.
- Yeo, G. C., Jaidka, K., & Cheung, W. L. (2024). Third-Person Inferences of Product Reviews and Influence in Consumer Behavior.

WORKSHOPS/CERTIFICATES

SICSS Singapore 2022 (Summer Institute in Computational Social Science) June 2022–July 2022

- Content: collecting digital trace data, text analysis, online experiments, social network analysis
- Project: Examining the turnover contagion of "leaving academia" on social media
 - Collected and processed text data by scraping Twitter using the Twitter API
 - Applied text and social network analysis to derive insights on user interactions and discourse patterns
 - Authored research proposals and delivered project presentations

ADDITIONAL RESEARCH EXPERIENCE

Research Assistant, Department of Psychology, National University of Singapore

Jun 2017–Dec 2018

- Supervisor: Ryan Hong
- Study: Cultural differences in situational perception: part of an international collaboration to assess cultural differences in situational perception.
- Responsibilities: coordinate the recruitment of participants and administer questionnaires.

ACADEMIC SERVICE

Organizing Committee:

- Singapore Symposium on Natural Language Processing 2023, 2024
- Summer Institute in Computational Social Science (SICSS) Singapore 2025

Program Committee:

- The 31st International Conference on Computational Linguistics (COLING 2024)

Ad Hoc Reviewer:

- Conferences:

International Conference on Computational Social Science (IC2S2, 2024)
The Conference on Empirical Methods in Natural Language Processing (EMNLP, 2023, 2024)
the Annual Meeting of the Association for Computational Linguistics (ACL, 2024, 2025)

CO-CURRICULAR ACTIVITIES

Oasis Second Chance Animal Shelter (OSCAS), Director

Dec 2015-present

- Planned and implemented directives for sustainability of the shelter including budget management and operations
- Trained and supervised volunteers in animal welfare, rehabilitation and psychology which increased adoption rates by 13% on a 1-year average.
- Partnered with stakeholders (including government agencies such as NParks) and organized for events of outreach, education, and fundraising to the public

Kadir Boxing School, Trainee

Dec 2008-Dec 2013

- Obtained silver in the 2009 Singapore Amateur Boxing Association Competition

Project Calvary (Overseas Community Involvement Programme), Student

Dec 2009-Jan 2009

 Led and spearheaded my team of classmates to organize and engage the children from the orphanage in Johor, Malaysia to participant in games and bonding activities