Department of Psychology 108 E Dean Keeton St Austin TX 78712 email: desmond.ong@utexas.edu website: <u>desmond-ong.github.io</u> github: <u>github.com/desmond-ong</u> Last Updated: Aug 2022

### **Research Interests**

I am a cognitive scientist interested in affective and social cognition: how humans reason about the emotional and mental states of others. At a basic level, I distill insights from affective science and cognitive psychology into formal and precise models of reasoning about emotions, intentions, and other mental states. At an applied level, I study how we can build computational and AI models that can perform such affective and social reasoning (for affective computing and social robotics).

In my research, I take an interdisciplinary approach, theoretically grounded in cognitive science and affective science, and augmented with tools from computer science (probabilistic modelling and probabilistic programming; machine learning; natural language processing). With my collaborators, I also study affective and social cognition through developmental, neuroscientific, clinical, social psychological and interventional lenses.

#### **Education**

2017 Ph.D., Psychology (Cognitive Psychology and Affective Science), Stanford University

2017 M.S., Computer Science (Specialization in Artificial Intelligence), Stanford University

2014 M.A., Psychology, Stanford University

2011 B.A., Economics (summa cum laude; top in class),

and Physics (magna cum laude; top three in class),

with minors in Cognitive Studies; and in Information Science,

Cornell University

### **Professional Appointments**

Aug 2022 - Assistant Professor

present Department of Psychology

The University of Texas at Austin

2019 – 2022 Assistant Professor

Department of Information Systems and Analytics

School of Computing, National University of Singapore

(NUS Research Center affiliations: 2019 – 2022: NUS Artificial Intelligence Lab; 2020 – 2022: Institute for Applied Learning Sciences and Educational Technology

(ALSET);

2021 – 2022: Centre for Trusted Internet and Community; Institute of Data Science)

2017 - 2022 Research Scientist

Institute of High Performance Computing (IHPC),

Agency for Science, Technology and Research (A\*STAR), Singapore

(From 2019-2022, I held a minority-time appointment at A\*STAR)

### Awards, Honors, Fellowships

2022 Faculty Teaching Excellence Award, National University of Singapore

2021 Best Paper Award, IEEE Affective Computing and Intelligent Interaction 2021

2015 Computational Social Science Fellowship, Institute for Research in the Social Sciences, Stanford

2014 Society for Personality and Social Psychology Graduate Student Travel Award

2012 National Science Scholarship: PhD (NSS-PhD)

Agency for Science, Technology and Research (A\*STAR), Singapore Funding period: 2012 – 2017 (Full tuition and stipend support for graduate studies.)

2011 Paul Hartman Prize in Applied Physics, Cornell

Awarded for outstanding work in experimental physics by an undergraduate in Physics or Applied Physics.

2011 Omicron Delta Epsilon

International Honor Society in Economics

2011 Phi Beta Kappa

Honor Society in the Arts and Sciences

2011 A\*STAR Chairman's Honours List

For outstanding academic performance

2009 Hunter R. Rawlings III Cornell Presidential Research Scholarship

Funding period: 2009 – 2011 (Undergraduate research scholarship with a research grant of \$5,000.)

2006 National Science Scholarship: B.S. (NSS-BS)

Agency for Science, Technology and Research (A\*STAR), Singapore

Funding period: 2008 - 2011 (Full tuition and stipend support for undergraduate studies.)

### **Research Grants**

7. "The "Other Me": Human-Centered AI Assistance In Situ"

AI Singapore Research Grant Call (to PI: D. Hsu).

2021 - 2025. Role: Co-Principal Investigator (until 2022), Collaborator (from 2022)

6. "Developing Capabilities in AI Modelling of Social and Affective Behaviour"

Ministry of Education Academic Research Fund Tier 1 (NUS Startup Grant)

2019 – 2022. Role: Principal Investigator

5. "Assistive AI with Artificial Theories of Mind and Body"

AI Singapore Grant Call (to PI: H. Soh)

2019 - 2022. Role: Collaborator

4. "Semantic and Map-lite Indoor Visual Navigation"

National Robotics Programme (to PI: K.W. Wan)

2019 – 2021, extended to 2022. Role: Co-Investigator

3. "Scalable Mindset Interventions to Nurture Strategic, Self-Regulated Learners"

Singapore Millennium Foundation Grant (to PI: P. Chen)

2018 - 2021. Role: Interdisciplinary Collaborator

2. "Human-Centric AI (CHEEM) Research Project"

A\*STAR Science and Engineering Research Council

(to Programme Managers K. Kwok, C. Tan)

2017 - 2020. Role: Work Package Lead

1. "Computational and brain predictors of emotion cue integration"

National Institutes of Health 1R01MH112560-01 (to PI: J. Zaki)

2017 – 2022. Role: Other Significant Contributor (key personnel)

### **Publications**

- Links to sortable lists of publications (by discipline/topic), and associated code and data, can be found on my website.
- †indicates primary trainee.
- 47. Suresh, V. †, & Ong, D. C. (2022). Using Positive Matching Contrastive Loss with Facial Action Units to mitigate bias in Facial Expression Recognition. In *Proceedings of the 10th International Conference on Affective Computing and Intelligent Interaction (ACII 2022).*
- 46. Jospe, K., Genzer, S., Mansano, L., **Ong, D. C.**, Zaki, J., Soroker, N., & Perry, A. (accepted). Impaired empathic accuracy following damage to the left hemisphere. *Biological Psychology*.
- 45. Goldenberg, A., Schone, J., Huang, Z., Sweeny, T. D., **Ong, D. C.**, Brady, T. F., Robinson, M. M., Levari, D., Zaki, J., & Gross, J. J. (2022). Amplification in the Evaluation of Emotional Expressions Over Time. *Nature Human Behaviour*.
- 44. Genzer, S.\*, **Ong, D. C.\***, Zaki, J., & Perry, A. (2022). Mu rhythm suppression over sensorimotor regions is associated with greater empathic accuracy. *Social Cognitive and Affective Neuroscience*.
  - \* equal contribution
- 43. Houlihan, S. D., **Ong, D. C.**, Cusimano, M., & Saxe, R. (2022). Reasoning about the antecedents of emotions: Bayesian causal inference over an intuitive theory of mind. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*
- 42. Teo, D. †, Ang, Z. Y. †, & **Ong, D. C.**, (2022). Modeling Causal Inference from Emotional Displays. In *Proceedings of the 44th Annual Meeting of the Cognitive Science Society*.
- 41. Weisz, E., Chen, P., **Ong, D. C.**, Carlson, R. W., Clark, M. D., & Zaki, J. (2022). A Brief Intervention to Motivate Empathy among Middle School Students. *Journal of Experimental Psychology: General*.
- 40. **Ong, D. C.** (2021). An Ethical Framework for Guiding the Development of Affectively-Aware Artificial Intelligence. In *Proceedings of the 9th International Conference on Affective Computing and Intelligent Interaction (ACII 2021).* [Oral Presentation]

  [Best Paper Award]
- 39. **Ong, D. C.**, Asaba, M., Lim, H. Y. †, Chen, P., & Gweon, H. (2021). "If only Santa had one more present": Exploring the development of near-miss counterfactual reasoning. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*.
- 38. **Ong, D. C.**, Soh, H., Zaki, J., & Goodman, N. D. (2021). Applying Probabilistic Programming to Affective Computing. *IEEE Transactions on Affective Computing*, 12(2), 306-317.
  - Material from this paper was presented as a Tutorial at *Affective Computing and Intelligent Interaction*, in Cambridge, UK, September 2019, and at a Tutorial at A\*STAR, Singapore, June 2018.
- 37. **Ong, D. C.,** Wu, Z.†, Zhi-Xuan, T.†, Reddan, M., Kahhale, I., Mattek, A., & Zaki, J. (2021). Modeling emotion in complex stories: the Stanford Emotional Narratives Dataset. *IEEE Transactions on Affective Computing*, 12(3), 579-594.
- 36. Chen, P.\*, **Ong, D. C.\***, Ng, J., & Coppola, B. P. (2021). Explore, Exploit, and Prune in the Classroom: Strategic Resource Management Behaviors Predict Performance. *AERA Open*, 7(1), 1-14.
  - \* equal contribution

- 35. Lai, Y., Kankanhalli, A., & **Ong**, **D. C.** (2021). Human-AI Collaboration in Healthcare: A Review and Research Agenda. In *Proceedings of the Hawaii International Conference on System Sciences* 2021.
- 34. Nguyen, T.-S., Wu, Z.†, & **Ong, D. C.** (2021). Attention Uncovers Task-Relevant Semantics in Emotional Narrative Understanding. *Knowledge-Based Systems*, 226, 107162.
- 33. Suresh, V.†, & **Ong, D. C.** (2021). Not all negatives are equal: Label-Aware Constrastive Loss for fine-grained text classification. In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021).*
- 32. Suresh, V. †, & **Ong, D. C.** (2021). Using Knowledge-Embedded Attention to Augment Pre-trained Language Models for Fine-Grained Emotion Recognition. In *Proceedings of the 9th International Conference on Affective Computing and Intelligent Interaction (ACII 2021).* [Oral Presentation]
- 31. Teo, D. †, & **Ong, D. C.** (2021). Learning from Agentic Actions: Modelling Causal Inference from Intention. In *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society*.
- 30. Weisz, E., **Ong, D. C.**, Carlson, R. W., & Zaki, J. (2021). Building Empathy: A Brief Intervention to Promote Social Connection. *Emotion*, 21(5), 990–999
- 29. Wu, Z. †, & Ong, D. C. (2021). Context-Guided BERT for Targeted Aspect-Based Sentiment Analysis. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 35(16), 14094-14102.
- 28. Wu, Z.<sup>†</sup>, & **Ong**, **D.** C. (2021). Pragmatically Informative Color Generation by Grounding Contextual Modifiers. In *Proceedings of the Society for Computation in Linguistics*, 4(54).
- 27. Wu, Z. †, Kreiss, E., **Ong, D. C.**, & Potts, C. G. (2021). ReaSCAN: Compositional Reasoning in Language Grounding. In *Proceedings of the Neural Information Processing Systems Track on Datasets and Benchmarks* (NeurIPS 2021).
- 26. Jospe, K., Genzer, S., Klein-Selle, N., **Ong, D. C.**, Zaki, J. & Perry, A. (2020). The contribution of linguistic and visual cues to physiological synchrony and empathic accuracy. *Cortex*, 132, 296-308.
- 25. Wu, Z.†, Nguyen, T.-S., & **Ong, D. C.** (2020). Structured Self-Attention Weights Encodes Semantics in Sentiment Analysis. In *Proceedings of the Third BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP*, 255-264. (EMNLP 2020 Workshop)
- 24. Zhi-Xuan, T.†, Soh, H., & **Ong, D. C.** (2020). Factorized Inference in Deep Markov Models for Incomplete Multimodal Time Series. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 34(06), 10334-10341. [Oral Presentation]
- 23. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2019). Computational models of emotion inference in Theory of Mind: A review and roadmap. *Topics in Cognitive Science*, 11(2), 338-357.
- 22. Asaba, M.\*, **Ong**, **D**. **C**.\*, & Gweon, H. (2019). Integrating expectations and outcomes:

  Preschoolers' developing ability to reason about others' emotions. *Developmental Psychology*, 55(8), 1680-1693.

  \* equal contribution
- 21. Tan, Z.-X.<sup>†</sup>, & **Ong**, **D. C.** (2019). Bayesian Inference of Social Norms as Shared Constraints on Behavior. In *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*, 2919-2925.
- 20. Tan, Z.-X.\*†, Goel, A.\*, Nguyen, T.-S.\*, & **Ong, D. C.** (2019). A Multimodal LSTM for Predicting Listener Empathic Responses over time. Presented at the *OMG-Empathy Challenge workshop at the 14th IEEE International Conference on Automatic Face and Gesture Recognition (FG) 2019.*\* equal contribution

- 19. Wu, Z.†, Zhang, X., Zhi-Xuan, T.†, Zaki, J. & **Ong, D. C.** (2019). Attending to Emotional Narratives. In *Proceedings of the 8th International Conference on Affective Computing and Intelligent Interaction (ACII 2019).* [Oral Presentation]
- 18. Xie, Y., Bodala, I. P., **Ong, D. C.**, Hsu, D., & Soh, H. (2019). Robot Capability and Intention in Trust-based Decisions across Tasks. In *Proceedings of the 14th ACM/IEEE Conference on Human-Robot Interaction (HRI)*, 39-47.
- 17. **Ong, D. C.**, Goodman, N. D., & Zaki, J. (2018). Happier than thou? A self-enhancement bias in emotion attribution. *Emotion*, 18(1), 116-126.
- 16. Williams, W. C., Morelli, S. A., **Ong, D. C.**, & Zaki, J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of Personality and Social Psychology*, 115(2), 224-254.
- 15. **Ong, D. C.**, Zaki, J., & Gruber, J. (2017). Increased cooperative behavior across remitted bipolar I disorder and major depression: Insights utilizing a behavioral economic trust game. *Journal of Abnormal Psychology*, 126(1), 1-7.
- Chen, P., Chavez, O., Ong, D. C., & Gunderson, B. (2017). Strategic Resource Use for Learning: A Self-administered Intervention that Guides Effective Resource Use Enhances Academic Performance. Psychological Science, 28(6), 774-785.
- 13. Morelli, S. A., **Ong, D. C.**, Makati, R., Jackson, M. O., & Zaki, J. (2017). Empathy and well-being correlate with centrality in different social networks. *Proceedings of the National Academy of Sciences*, 114(37), 9843-9847.
- 12. **Ong, D. C.\***, Asaba, M.\*, & Gweon, H. (2016). Young children and adults integrate past expectations and current outcomes to reason about others' emotions. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*, 135-140.

  \* equal contribution
- 11. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2016). Emotions in lay explanations of behavior. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*, 360-365.
- 10. Devlin, H. C., Zaki., J., **Ong, D. C.**, & Gruber, J. (2016). Tracking the emotional highs, but missing the lows: Hypomania Risk is associated with positively biased empathic accuracy inference. *Cognitive Therapy and Research*, 40(1), 72-79.
- 9. Nook, E., **Ong, D. C.**, Morelli, S. A., Mitchell, J. P., & Zaki, J. (2016). Prosocial Conformity: Social norms motivate broad generosity and empathy. *Personality and Social Psychology Bulletin*, 42(8), 1045-1062.
- 8. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (2015) Affective Cognition: Modeling reasoning about emotion. *Cognition*, 143. 141-162.
- 7. **Ong, D. C.**, Goodman, N. D., & Zaki, J. (2015). Near-misses sting even when they are uncontrollable. In *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*, 1775-1780.
- 6. Phillips, J.\*, **Ong, D. C.\***, Surtees, A. D. R., Xin, Y., Williams, S., Saxe, R., & Frank, M. C. (2015). A second look at automatic false belief representation: reconsidering Kovács, Téglás, and Endress (2010). *Psychological Science*, 26(9), 1353-1367.

  \* equal contribution
- 5. Devlin, H. C., Zaki., J., **Ong, D. C.**, & Gruber, J. (2014). Not as Good as You Think? Trait Positive Emotion is Associated with Increased Self-Reported Empathy but Decreased Empathic Performance. *PLOS ONE*, 9 (10), e110470

### Previous work in physics and optics

- 4. Leahy, B. D., Cheng, X., **Ong**, **D. C.**, Liddell-Watson, C., & Cohen, I. (2013) Enhancing rotational diffusion using oscillatory shear. *Physical Review Letters*, **110**, 228301.
- 3. **Ong**, **D. C.**, Solanki, S., Liang, X., & Xu, X. W. (2012). Analysis of laser speckle severity, granularity, and anisotropy using the power spectral density in polar-coordinate representation. *Optical Engineering*, **51**, 054301.
- 2. Gerbode, S. J., **Ong**, **D. C.**, Liddell, C. M., & Cohen, I. (2010). Dislocations and vacancies in two-dimensional mixed crystals of spheres and dimers. *Physical Review E*, **82**, 041404.
- 1. Gerbode, S. J., Agarwal, U., **Ong**, **D. C.**, Liddell, C. M., Escobedo, F., & Cohen, I. (2010). Glassy dislocation dynamics in 2-D colloidal dimer crystals. *Physical Review Letters*, **105**, 078301.

### **Conference Symposia and Talks**

#### **Invited Conference Talks**

- 3. Affective Computing Preconference at the International Society for Research in Emotion (ISRE 2022). Los Angeles, July 2022.
- 2. Society for Affective Science (SAS 2022). Virtual, March 2022. "Critically examining the generalizability of facial expression recognition models."
- 1. Emotion Preconference at the Society for Personality and Social Psychology (SPSP 2021). Virtual, Feb 2021. "What can AI learn from Affective Science (and vice versa)?"

#### **Organized Workshops**

Workshop: Interdisciplinary Advanced in Affective Cognition (<a href="https://affcog.github.io">https://affcog.github.io</a>)
 Organizers: Wu, Y., Ong, D. C., & Gweon, H.

Contributed Workshop at CogSci 2021

Speakers: Hyowon Gweon, Yang Wu, Desmond Ong, Eric Walle, Gyorgy Gergely, Daniel Dukes, Vanessa Lobue, Seth Pollak, Kara Weisman, Mark Thornton, Anat Perry, Rebecca Saxe

### **Chaired Conference Symposia**

7. Symposium: Emotion and Social Perception in Naturalistic Contexts: Perspectives from Affective Computing and Affective Neuroscience.

Chair: Ong, D. C. Co-chair: Reddan, M.

Contributed symposium at the 2020 Society for Affective Science (SAS) Annual Conference, San Francisco, CA, April 2020. [Conference cancelled due to Covid-19]

Speakers: Desmond Ong, Marianne Reddan, Eshin Jolly, Sidney D'Mello

- **Ong, D. C.**, Wu, Z., Reddan, M., & Zaki, J. (April 2020). Using deep and probabilistic modelling to study emotional cue integration in naturalistic emotional narratives.
- 6. Symposium: How people think they're better than others and why it matters: consequences for social relationships, emotions, the courtroom, and online romance.

Chairs: Ong, D. C., & Hughes, B. L.

Contributed symposium at the Seventeenth Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA, January 2016.

Speakers: Clayton Critcher, Desmond Ong, Mark Alicke, Emily Yeh

**Ong, D. C.**, Goodman, N. D., & Zaki, J. (January 2016). Happier than thou: an egocentric positivity bias in emotion attribution. Talk given at the Seventeenth Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.

- 5. Symposium: Understanding Affective Cognition: Frontiers in modeling reasoning about others' emotions.
  - Chairs: Ong, D. C., Zaki, J., & Goodman, N. D.
  - Contributed symposium at the 36<sup>th</sup> Annual Meeting of the Cognitive Science Society, Quebec City, QC, Canada, July 2014.
  - Speakers: Amy Skerry, Desmond Ong, Yang Wu, Andrew Meltzoff
  - Ong, D. C., Zaki, J., & Goodman, N. D. (July 2014). Modeling lay theories of emotion attribution. Talk given at the 36<sup>th</sup> Annual Meeting of the Cognitive Science Society, Quebec City, QC, Canada.

#### **Contributed Conference Talks**

- 6. Weisz, E., **Ong, D. C.**, Chen, P., & Zaki, J. (Feb 2020). A Brief Intervention to Build Empathy in Middle School. Talk given by E. Weisz at the Society for Personality and Social Psychology Annual Convention 2020, New Orleans, LA.
- 5. Chen, P. C., Chavez, O., **Ong, D. C.**, & Gunderson, B. (May 2018). Strategically-Directed Effort: Self-Reflective Resource Use Promotes Better Academic Outcomes. Talk given by D. C. Ong at the 11<sup>th</sup> Meeting of the Society for the Science of Motivation, San Francisco, CA.
- 4. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (April 2017). Towards studying affective cognition in naturalistic contexts. Talk given at the Affective Computing Pre-Conference, at the Society for Affective Science Annual Conference, Boston, MA.
- 3. **Ong, D. C.**, Goodman, N. D., & Zaki, J. (July 2015). Near-misses sting even when they are uncontrollable. Talk given at the 37<sup>th</sup> Annual Meeting of the Cognitive Science Society, Pasadena, CA.
- 2. **Ong, D. C.**, Zaki, J., & Goodman, N. D. (February 2015). Modeling lay theories of emotion attribution. Talk in symposium ("Beliefs About Emotion: Outcomes at the Individual, Interpersonal, and Cultural Levels") at the Sixteenth Annual Meeting of the Society for Personality and Social Psychology, Long Beach, CA.
- 1. **Ong, D. C**, Goodman, N. D., & Zaki, J. (February 2014). Differences in intuitive theories of emotion along psychological distance. Talk given at the Emotion Preconference of the Fifteenth Annual Meeting of the Society for Personality and Social Psychology, Austin, TX.

#### **Invited Talks**

- 5. February 2022. Ministry of Education School Cluster N5 Meeting, Singapore.
- 4. February 2020. Social Cognitive Neuroscience Lab Meeting, Department of Brain and Cognitive Sciences, MIT.
- 3. June 2019. Probabilistic Machine Learning Seminar, Uber AI Labs, San Francisco, USA.
- 2. April 2017. Computational Cognitive Neuroscience/Moral Psychology Research Lab Meeting, Department of Psychology, Harvard University
- 1. August 2013. Positive Emotion and Psychopathology Lab Meeting, Department of Psychology, Yale University

#### At own institution

- 8. February 2022. Invited Keynote Panelist on NUS Symposium on Artificial Intelligence Education, National University of Singapore
- 7. May 2020. Institute for Applied Learning Sciences and Educational Technology, National University of Singapore.

- 6. April 2016. Affective Area Seminar, Department of Psychology, Stanford University
- 5. March 2016. Cognition and Neuroscience Area Seminar, Department of Psychology, Stanford University
- 4. February 2015. Affective Area Seminar, Department of Psychology, Stanford University
- 3. January 2015. Affective Area Seminar, Department of Psychology, Stanford University
- 2. October 2013. Affective Area Seminar, Department of Psychology, Stanford University
- 1. April 2013. Cognition and Neuroscience Area Seminar, Department of Psychology, Stanford University

## **Teaching Experience**

National University of Singapore, Department of Information Systems and Analytics

2. IS4152 / IS5452: Affective Computing (Final-year undergraduate elective / Masters elective). [https://is4152.github.io/]

Semester 1, AY 2021/2022

Semester 1, AY 2020/2021

1. BT1101: Introduction to Business Analytics (First-year undergraduate statistics; taught in *R*).

Semester 1, AY 2021/2022. Enrolment: 350

Semester 2, AY 2020/2021. Enrolment: 120

Semester 1, AY 2019/2020. Enrolment: 280

#### Pre-tenure-track Teaching Assistant experience

Stanford University, Department of Psychology

- 5. Psych 204: Computation and Cognition: The Probabilistic Approach (Graduate), Spring 2015. Instructor: Noah Goodman
- 4. Psych 254: Lab in Experimental Methods (Graduate), Winter 2015. Instructor: Michael Frank
- 3. Psych 90: Intro to Clinical Psychology (Undergraduate), Fall 2014. Instructor: Ian Gotlib
- 2. Psych 80: Intro to Personality and Affective Science (Undergraduate), Spring 2014. Instructor: Jeanne Tsai
- 1. Psych 1: Intro to Psychology (Undergraduate); Fall 2013, Winter 2014 (Instructor: James Gross, Jamil Zaki, Bridgette Hard)

#### **Tutorials**

- Ong, D. C., Tan, Z.-X., Soh, H., Zaki, J., & Goodman, N. D. (2019). "Integrating Theory-Driven and Data-Driven Approaches to Affective Computing via Deep Probabilistic Programming". Tutorial taught at *Affective Computing and Intelligent Interaction*, Cambridge, UK, September 2019.
- Ong, D. C., & Goodman, N. D. (2018). "Applying Probabilistic Programming to building Human-Centric AI Technologies". Tutorial co-taught with Noah Goodman, at A\*STAR, June 2018

#### Advising

#### Graduate student advising

Varsha Suresh (NUS Ph.D. Student in Computer Science; Co-supervised) 2020 – present Dennis Teo (NUS Ph.D. Student in Information Systems and Analytics) 2020 – present Phoebe Chua (NUS Ph.D. Student in Information Systems and Analytics) 2020 – present Gerard Yeo (NUS Ph.D. Student in Data Science) 2021 – present

<u>Wu</u> Zhengxuan (Stanford Masters Student in Symbolic Systems, now Stanford Ph.D. student in CS), Mar 2018 – present

#### Full-time Research Assistants (and equivalent)

<u>Tan</u> Zhi-Xuan (A\*STAR post-baccalaureate Research Engineer), Jun 2018 – Aug 2019. Currently: Ph.D. Student at MIT EECS & Brain and Cognitive Sciences; Open Phil AI Fellow

<u>Lim</u> Hui Yan (NUS Full-Time Research Assistant), Aug 2020 – May 2022.

### Honors Thesis / Final Year Projects (FYP) Students

Terence Lim (NUS Business Analytics undergraduate, FYP, Aug 2019 - May 2020)

\*Terence won the NUS Outstanding Undergraduate Researcher Prize AY2019/2020

Kong Yan San (NUS Business Analytics undergraduate, FYP, Aug 2020 - May 2021)

\*Yan San won the SoC Outstanding Computing Project Prize AY2020/2021

Darren Lee (NUS Computer Science undergraduate, FYP, Aug 2020 - May 2021)

#### Interns

Ng Hui Xin (Vassar graduate, Jan 2019 - Aug 2019; now Ph.D. Student at UC San Diego)

<u>Lu</u> Hui (Columbia undergraduate, Jun 2019 - Aug 2019)

Rucha Kelkar (MIT undergraduate, Jun 2019 - Aug 2019)

Pu Ruohan (Cambridge undergraduate, Jul 2019 - Aug 2019)

Joseph Kwon (Yale undergraduate, Jun 2020 - Aug 2020; now Lab Manager at MIT)

#### Ph.D. Committee

Luo Kai (NUS Information Systems and Analytics, graduated 2020)

Yin Jiamin (NUS Information Systems and Analytics)

Vo Thanh Vihn (NUS Computer Science, graduated 2022)

**Guo** Yutong (NUS Information Systems and Analytics)

Zheng Chenxu (NUS Information Systems and Analytics)

### **Professional Service**

#### National-Level Service

Member, Technical Advisory Group, National Robotics Programme, Singapore, 2021 – 2022 Contributor, Foundational Research Capabilities (FRC) report on General AI, 2022 (subtopic: Affective Computing), commissioned by the National Research Foundation, Singapore.

#### Professional Societies and Conferences

Cognitive Science Society (CogSci)

Conference Co-Chair, CogSci 2023

Communications Chair, CogSci 2020

Program Committee Member, CogSci 2020-2022

#### IEEE Affective Computing and Intelligent Interaction (ACII)

Program Committee Co-Chair, ACII 2022

Workshop and Special Track Co-Chair, and Senior Program Committee Member, ACII 2021

#### Academic Service (National University of Singapore)

Publicity Committee, Department of Information Systems and Analytics, 2021-present

School Ethics Review Committee, School of Computing, 2019-present

Graduate Admissions, Department of Information Systems and Analytics, 2019-present

#### Academic Service (Stanford University)

Faculty Search Committee, Cognitive Area, Department of Psychology, 2014-2015

Graduate Admissions Committee, Affective Science Area, Department of Psychology, 2013-2014

Area Seminar Committee, Department of Psychology: Cognitive Area, 2014-2015 & Affective Science Area, 2013-2014

#### Reviewing activities

Board of Reviewers, Cognitive Science, 2021-2024

#### Ad-hoc reviewer

Journals: Nature Reviews Psychology; Psychological Science; Psychological Review;

Trends in Cognitive Science; Cognition; Cognitive Science; Emotion;

Journal of Experimental Psychology: General;

Perspectives on Psychological Science; Developmental Psychology;

IEEE Transactions on Affective Computing; IEEE Transactions on Cybernetics;

Computer Speech and Language;

Journal of Neuroscience, Psychology, and Economics; Optical Engineering

Cognitive Science Conferences: Cognitive Science Society (CogSci 2015-2022),

Society for Philosophy and Psychology (SPP 2016)

Computer Science Conferences: Human-Robot Interaction (HRI 2019-2021),

Association for the Advancement of Artificial Intelligence (AAAI 2019),

Empirical Methods in Natural Language Processing (EMNLP 2020, 2015)

### \*nominated as an Outstanding Reviewer for EMNLP2020

International Conference on Robotics and Automation (ICRA 2021)

Information Systems Conferences: International Conference on Information Systems (ICIS 2020)

ACM Computer-Supported Cooperative Work and Social Computing (CSCW 2021)

## **Professional Memberships**

- 2014 Cognitive Science Society
- 2013 Society for Personality and Social Psychology (SPSP)
- 2014 Society for Affective Science (SAS)
- 2018 IEEE and IEEE Computer Society
- 2019 Association for the Advancement of Artificial Intelligence (AAAI)

#### References

Noah D. Goodman

Associate Professor of Psychology and Computer Science, and Linguistics (by courtesy)

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#### Jamil Zaki

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#### June Gruber

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