

EDUCATION

University of California, Los Angeles

Ph.D., Social and Affective Neuroscience

M.A., Computational Cognition

Advisors: Matthew D. Lieberman, Carolyn Parkinson

2018 – Present

Carnegie Mellon University

B.S., Cognitive Neuroscience

Minors: Computational Neuroscience, Global Studies

Advisors: Michael J. Tarr, Greg J. Siegle

2010 – 2014

RESEARCH EXPERIENCE

NSF Research Fellow • Social Cognitive Neuroscience Lab ([Lieberman](#)) • UCLA

2016 – Present

NSF Research Fellow • Computational Social Neuroscience Lab ([Parkinson](#)) • UCLA

2018 – Present

External Collaborator • Behavioral Cognitive Neuroscience Lab ([Parvizi](#)) • Stanford

2018 – Present

Staff Researcher • Social Affective Neuroscience Lab ([Eisenberger](#)) • UCLA

2016 – 2018

Staff Researcher • TarrLab ([Tarr](#)) • Carnegie Mellon

2014 – 2016

Research Assistant • Cognitive Affective Neuroscience Lab ([Siegle](#)) • U. of Pittsburgh

2011 – 2014

Research Assistant • Addiction Neuropharmacology Lab ([Carroll](#)) • U. of Minnesota

2010

Intern • National Weather Service ([Nelson](#)) • Twin Cities, Minnesota

2008 – 2009

AWARDS & HONORS

Graduate Research Fellowship (DGE-1650604) • National Science Foundation

2019 – 2023

Harold H. Kelley Award • UCLA

2023

Editorial Spotlight • *Nature*

2022

Refereed Spotlight • *Trends in Cognitive Sciences*

2022

Graduate Summer Research Mentorship • UCLA

2019

Advanced Science Fellowship • São Paulo Research Foundation

2018

Sigma Xi Best Poster Award • Carnegie Mellon

2014

Dozzi Research Fellowship • Carnegie Mellon

2012

Undergraduate Research Grant • Carnegie Mellon

2010 – 2014

PEER-REVIEWED ARTICLES

See [Google Scholar](#) and [ORCID](#) for latest articles and metrics.

Tan KM, Daitch AL, Pinheiro-Chagas P, Fox KCR, Parvizi J, Lieberman MD. (2022). Electrocorticographic evidence of a common neurocognitive sequence for mentalizing about the self and others. *Nature Communications*. 13, 1919. doi.org/10.1038/s41467-022-29510-2

Straccia MA, Teed AR, Katzman PL, **Tan KM**, Parrish MH, Irwin MR, Eisenberger NI, Lieberman MD, Tabak BA. (2021). Null results of oxytocin and vasopressin administration on mentalizing in a large fMRI sample: Evidence from a randomized controlled trial. *Psychological Medicine*, 1-11. doi.org/10.1017/S0033291721004104

Tan KM, Burklund LJ, Craske MG, Lieberman MD. Posttraumatic stress disorder and the social brain: Affect-related disruption of the default and mirror networks. (2019). *Depression and anxiety*. 36(11):1058-71. doi.org/10.1002/da.22953

Moieni M, **Tan KM**, Inagaki TK, Muscatell KA, Dutcher JM, Jevtic I, Breen EC, Irwin MR, Eisenberger NI. Sex differences in the relationship between inflammation and reward sensitivity: a randomized controlled trial of endotoxin. (2019). *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. 2019 Jul; 4(7):619-26. doi.org/10.1016/j.bpsc.2019.03.010

Lieberman MD, Straccia MA, Meyer ML, Du M, **Tan KM**. Social, self, (situational), and affective processes in medial prefrontal cortex (MPFC): Causal, multivariate, and reverse inference evidence. (2019). *Neuroscience & Biobehavioral Reviews*. 99, 311-28. doi.org/10.1016/j.neubiorev.2018.12.021

INVITED TALKS

Tan KM, Daitch AL, Pinheiro-Chagas P, Fox KCR, Parvizi J, Lieberman MD. (2021, Sep). *A common cortical hierarchy for mentalizing about the self and others*. Annual symposium, Brain Research Institute, UCLA.

Tan KM, Daitch AL, Fox KCR, Parvizi J, Lieberman MD. (2019, May). *Intracranial electrophysiology of mentalizing*. Annual meeting, Social and Affective Neuroscience Society, Miami Beach, USA. [\[YouTube\]](#)

WORKING MANUSCRIPTS

Tan KM, Parkinson M, Parvizi J, Lieberman MD. (In Prep). Neuronal population encoding of autobiographical representations during mentalizing.

Tan KM, Parkinson M, Parvizi J, Lieberman MD. (In Prep). Social semantic tuning of human neuronal populations.

Tan KM, Parvizi J, Lieberman MD. (In Prep). Feedforward and recurrent neuronal computations in social cognition.

Tan KM, Fox KCR, Parvizi J, Lieberman MD. (In Prep). Neuronal population specialization for mentalizing follows an intrinsic cortical gradient.

Tan KM, Tarr MJ. (In Prep). Bottom-up or top-down? The spatiotemporal dynamics of affective object perception differ across valence strength.

CONFERENCE PRESENTATIONS

Tan KM, Daitch AL, Fox KCR, Parvizi J, Lieberman MD. (2019, May). *Intracranial electrophysiology of mentalizing*. Annual meeting, Social and Affective Neuroscience Society, Miami Beach, USA. [\[Poster PDF\]](#)

Straccia MA, Teed AR, Katzman PL, **Tan KM**, Parrish MH, Irwin MR, Eisenberger NI, Lieberman MD, Tabak BA. (2019, May). *Null results of oxytocin and vasopressin administration on mentalizing in a large fMRI sample*. Annual meeting, Social and Affective Neuroscience Society, Miami Beach, USA.

Tan KM, Burklund LJ, Craske MG, Lieberman MD. (2018, May). *PTSD and the social brain: affect-related disruption of the default and mirror networks*. Annual meeting, Social and Affective Neuroscience Society, New York City, USA. [\[Poster PDF\]](#)

Du M, Straccia MA, **Tan KM**, Lieberman MD. (2018, May). *Meta-analysis of medial prefrontal cortex with NS+*. Annual meeting, Social and Affective Neuroscience Society, New York City, USA.

Ames DL, Gillespie GSR, Burns SM, **Tan KM**, Lieberman MD. (2018, May). *Predicting the effectiveness of health messaging through fMRI and fNIRS*. Annual meeting, Social and Affective Neuroscience Society, New York City, USA.

Cooper-White MA, Ames DL, Burns SM, **Tan KM**, Gillespie GSR, Lieberman MD. (2018, May). *Investigating the neural and cognitive mechanisms behind 'latitudes of acceptance' for the opinions of others*. Annual meeting, Social and Affective Neuroscience Society, New York City, USA.

Tan KM, Tarr MJ. (2016, April). *Valence-related visual encoding is dependent on valence strength prior to frontal affective processing*. Annual meeting, Social and Affective Neuroscience Society, New York City, USA. [\[Poster PDF\]](#)

Tan KM, Kraynak T, Siegle GJ. (2014, May). *Toward a pathophysiology of rumination: dorsal nexus resting-state functional connectivity in depression before and after serotonergic or behavioral interventions*. Annual symposium, Center for the Neural Basis of Cognition, University of Pittsburgh & Carnegie Mellon University. [\[Poster PDF\]](#)

Tan KM, Ferris L, Lee HS. (2013, May). *Effect of room temperature on interpersonal attraction*. Annual symposium, Dietrich College, Carnegie Mellon University.

AD-HOC REVIEWER

NeuroImage • Cerebral Cortex • Journal of Cognitive Neuroscience • Current Bioactive Compounds

TEACHING EXPERIENCE

Behavioral Neuroscience Wet Lab • UCLA
Intermediate Statistics • UCLA
Regression • UCLA
Introduction to Psychology • UCLA

Fall 2023
Fall 2022, Spring 2023
Winter 2023
Winter 2019

SOFTWARE DEVELOPMENT

electroCUDA

2021 – Present

Lead Developer • Behavioral Cognitive Neuroscience Lab • Stanford Neurology
GPU-based electrophysiology package with noise-resistant signal processing, robust statistics, and numerous machine learning tools (github.com/kevmtnan/electroCUDA).

TECHNICAL SKILLS

- **Machine learning:** cognitive modeling, NLP, computer vision, deep learning, supervised learning, LM/GLM
- **Signal processing:** source localization, denoising, decomposition, wavelet analyses, causal modeling
- **Data modalities:** ECoG, LFP, fMRI, EEG, MEG, NIRS, pharmacology, face tracking, text, images, video
- **Programming:** Matlab, Julia, R, Python, CUDA, C/C++; hardware acceleration/optimization (x86/GPU)

ACADEMIC SERVICE

Research Mentor • Minnetonka High School • Minnesota Dept. of Education	2019 – Present
Filipino Outreach • Underrepresented Students in Psychology • UCLA	2018 – Present
Member • Biological Sciences Council • UCLA	2018 – Present
Ad-hoc Organizer • UAW-2865 • UCLA	2018 – Present
Ad-hoc Organizer • AFSCME-3299 • UCLA	2016 – 2018
Founding Member • Neuroscience Student Action Committee • Carnegie Mellon	2014 – 2016
High School Outreach • Biology Student Action Committee • Carnegie Mellon	2012 – 2014

PROFESSIONAL AFFILIATIONS

Social and Affective Neuroscience Society • Society for Neuroscience • Society for Affective Science
Organization for Human Brain Mapping • Association for Psychological Science