

Ho Han Sheng

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WORK EXPERIENCE

Research Assistant

Oct 2023 - Present

School of Humanities and Behavioural Sciences, Singapore University of Social Sciences

Primary: [Research in Psychophysiology, Quality of Life, Stress, & Time Use \(PQRST\) Lab](#)

- PI: A/Prof Emily Ortega
- Conducted data cleaning, pre-processing, and statistical analyses in R for the National Council of Social Service - Ngee Ann Kongsi (NCSS-NAK) 360 Panel Study
- Conceptualised and applied mixed graphical models for exploratory data analysis of high-dimensional datasets
- Typeset large internal reports (≈ 400 pages) with \LaTeX
- Unpublished results informing policy-making on: (a) gender disparities in unpaid work, (b) work-life balance and flexible work arrangements, and (c) quality of life past COVID-19

Secondary: Behavioural Research and Applied Interpersonal Neuroscience (BRAIN) Lab

- PI: A/Prof Atiqah Azhari
- Implemented pre-processing and analytical pipeline for fNIRS data in Python
- Consulting on statistical analyses for three honours capstone projects working with fMRI data
- Developing and teaching Python workshops for lab members and broader psychology student population

Tertiary: [Lab for Affective and Well-being Science \(LAWS\)](#)

- PI: Dr. Oh Yong Sheng, Vincent
- Conducting high-dimensional statistical analyses on CHARLS and SHARE-ERIC datasets

Research Intern

Jan 2023 - Jul 2023

[Multimodal Neuroimaging in Neuropsychiatric Disorders Laboratory, Center for Sleep and Cognition, Yong Loo Lin School of Medicine, National University of Singapore](#)

- Utilised Python for mixture modelling of eye-tracking data
- Utilised R for data cleaning and exploratory data analysis
- Conducted qualitative interviews for stimulus recall tasks
- Scored neurocognitive batteries

Peer Mentor

Jan 2022 - Dec 2022

School of Science and Technology, Singapore University of Social Sciences

- Conducted weekly tutorials for MTH219: Fundamentals of Statistics and Probability and MTH220: Statistical Methods and Inference

SKILLS

Tools

\LaTeX , Git, PsychoPy, [EmotiBit](#), [QualCoder](#), SPSS, Qualtrics

Programming Languages

R, Python

CONFERENCE PRESENTATIONS

Tay, X. A., Ortega, E., Chan, Y. X. B., **Ho, H. S.**, & Tang, S. O. S. (2024, November 6–7). *Families who eat together stay together?: Examining time use of families in Singapore by family structure* [Conference presentation]. Asian Family Conference 2024, Singapore.

Ho, H. S., Ortega, E., Chan, Y. X. B., Tay, X. A., & Tang, S. O. S. (2024, September 2–6). *Exploratory network modelling of complex human systems in time-use research: Results from wave 1 of the Singapore NCSS-NAK 360 Panel Study* [Conference presentation]. Conference on Complex Systems 2024, Exeter, England.

PUBLICATIONS

Ortega, E., Tay, X. A., **Ho, H. S.**, Chan, Y. X. B., Cheok, S. Z. M., & Tang, S. O. S. (2024, November 7). *NCSS-NAK 360 Panel Research: Wave 1 report* [Unpublished internal report]. National Council of Social Service.

Ortega, E., Tay, X. A., **Ho, H. S.**, Tang, S. O. S., & Chan, Y. X. B. (2025a, March 21). *NCSS-NAK 360 Panel Study: Wave 2 report* [Unpublished internal report]. National Council of Social Service.

Ortega, E., Tay, X. A., **Ho, H. S.**, Tang, S. O. S., & Chan, Y. X. B. (2025b, May 30). *NCSS-NAK 360 Panel Study: Wave 3 report* [Unpublished internal report]. National Council of Social Service.

PROJECTS

Psychophysiological and Temporal Dynamics of Mixed Emotions **Ongoing**

- Honours capstone project (Co-Supervisors: A/Prof Emily Ortega; Dr. Oh Yong Sheng, Vincent)
- Integrated psychophysiological measures (EmotiBit), continuous self-reported valence (via game controller), cognitive appraisals, and video stimuli in PsychoPy experiment
- Developing idiographic, dynamical models of emotional experiences with TV-VAR
- Comparing (in)variance in emotional conditions with INIT and group-level similarity via mlVAR and GIMME

Effectiveness of Heart Rate Variability Biofeedback Training on Patients Undergoing Cardiac Rehabilitation (HRV-CARE) **Ongoing**

- Conceptualised longitudinal panel research design for randomised control trial
- Devised Structural Equation Modelling (SEM) and Generalised Network Psychometrics analysis plan to examine multimodal psychophysiological and behavioural measures
- Integrated wearable data collection platforms ([TechDoctor](#)) to capture continuous change in biomarkers across study duration

Experiences with Quantitative Methods in the Undergraduate Psychology Curriculum **Ongoing**

- Extension of independent research submitted for PSY455: Qualitative Methods
- Phenomenological study on psychology undergraduates' experiences learning quantitative methods
- Results informing redesign of quantitative modules at SUSS
- Implemented [OpenAI's Whisper](#) for transcription and QualCoder for analysis

Timing of Help and Future Motivation: The Role of Self-Efficacy in Singapore's Academic Context Jan 2025 - Apr 2025

- Group research project under PSY405: Applied Research in Social Psychology
- Devised mathematical specifications for hypotheses
- Conceptualised project design and procedures
- Conducted formal analysis (through R) with ANCOVA in a Latent Change Score specification for modelling mediation in a two-instance, pretest-posttest experimental design
- Wrote and interpreted statistical results through an SEM framework

Mental Wellness Toolkit @ North West CDC 2022 – 2023

- Conducted literature review on stress
- Authored sections on stress and coping strategies

PsyConnect Statistics Support Group May 2022 – present

- Founded and coordinated a peer-run statistics consulting platform for SUSS Psychology students

AWARDS & HONOURS

Student Travel Award, Singapore University of Social Sciences 2024

- ≈ \$4700
- For contributed talk “Exploratory Network Modelling of Complex Human Systems in Time-Use Research: Results from Wave 1 of the Singapore NCSS-NAK 360 Panel Study” at Conference on Complex Systems 2024

Dean's List, Singapore University of Social Sciences 2024

- For excellent performance in the BSc Psychology programme
- Academic accomplishments indicating attainment of a high level of competence and self-discipline

SUSS Community Impact Award, Singapore University of Social Sciences 2023

- For “Mental Wellness Toolkit @ North West CDC”
- Recognises and spotlights the positive impact of SUSS students' collaborative efforts within the community

EDUCATION

Professional Certificate in Network Psychometrics for Behavioural and Social Scientists Aug 2024

National University of Singapore

Bachelor of Science (Honours), Psychology 2020 - present

Singapore University of Social Sciences