HOKI FUNG

Neuroscience PhD Student David Geffen School of Medicine at UCLA



EDUCATION

University of California, Los Angeles

1 2022 - Now

Ph.D. Neuroscience

Dean's Award

National University of Singapore

== 2020 - 2022

M.Comp. Artificial Intelligence

Selected Courses: Neural Networks and Deep Learning, AI Planning and Decision Making, Uncertainty Modeling, 3D Computer Vision

University College London

== 2015 - 2016

M.Res. Cognitive Neuroscience

2013 - 201

Advisor: Prof. Sam J. Gilbert

Thesis: Decoding intentions of self and others from fMRI (Published)

University of California, Berkeley B.A. Psychology, (Minor) Education

== 2013 - 2015

Departmental Honors

Advisors: Prof. Alison Gopnik, Dr. Adrienne O. Wente Thesis: A cross-cultural study on causal inferences (Published)

SELECTED EXPERIENCES

Graduate Research Intern

== 2021 - Now

Laboratory for Affective and Translational Neuroscience (LATN) McLean Hospital/Harvard Medical School, USA

- Leading an fMRI-based functional connectivity analysis using recently developed brain mapping methods
- Performing statistical modeling and multi-level analyses linking clinical, behavioral, and brain measures from a clinical population

Research Data Scientist

== 2019 - 2021

Sleep and Cognition Laboratory and Clinical Imaging Research Centre YYL School of Medicine, National University of Singapore

- Initiated a study that investigates habits, global cognition, and brain structure in healthy children through analyzing a large, public dataset that has 10,000+ participants using machine learning
- Led multiple MR data analyses for clinical studies that involve different clinical groups, designs, and MRI modalities (fMRI, sMRI, dMRI)
- Implemented an automated preprocessing pipeline for brain images with stroke lesions that uses deep learning to perform lesion segmentation

Research Associate

== 2016 - 2018

Clinical Brain Lab, Nanyang Technological University, Singapore

- Led a multimodal study (from experimental design to data collection to manuscript write-up) involving 100+ healthy and ADHD participants
- Analyzed a resting-state fMRI dataset from MCI patients using DARTEL preprocessing and Independent Component Analysis (ICA)
- Helped standardize the lab's SPM preprocessing pipeline and developed Matlab scripts to automate the pipeline

Other Industry/Research Positions

Cognitive Scientist, Neuroglee Therapeutics, SG Newsletter Editor, Society for Neuroscience, SG Data Analyst, Datature, SG

Graduate Student Assistant, UCL, UK UG Research Assistant, UC Berkeley, USA Details

2021 - 2022

2021 - 2022

== 2013 - 2015

RESEARCH INTERESTS

Clinical Neuroscience

- Neural basis of executive function
- Biomarkers for psychiatric disorders
- Precision psychiatry



Research Methods

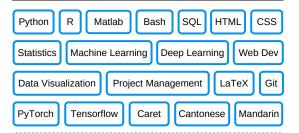
- Behavioral Experiments
- Wearable Technology
- Structural and functional MRI



Data Science

- Conventional Statistics
- Machine learning
- Deep Learning

SKILLS AND LANGUAGES



PUBLICATIONS

► Full list

- Fung, H., Yeo, B.T.T., Chen, C., Lo, J.C., Chee, M.W.L., and Ong, J.L. (accepted). Adherence to 24h movement recommendations and health indicators in early adolescence: Cross-sectional and longitudinal associations in the ABCD study. Journal of Adolescent Health.
- Gilbert, S. J. & Fung, H. (2018). Decoding intentions of self and others from fMRI. NeuroImage, 172, 278-290.
- Gopnik, A., O'Grady, S., Lucas, C., Griffiths, T., Wente, A., Bridger, S., Aboody, R., Fung, H., and Dahl, R (2017). Changes in cognitive flexibility and hypothesis search from childhood to adolescence to adulthood. Proceedings of the National Academy of Sciences, 114(30), 7892-7899.

SELECTED AWARDS

- Graduate Dean's Scholar Award, UCLA
- Top Consumer AI Product, SLINGSHOT
- Data Innovation Challenge, Rolls-Royce
- Trustee's Prize, Dean College
- President's List, Dean College
- 🙎 Harry L. Kreshpane Prize, Dean College