

HOKI FUNG

PhD Student, Computational Neuroscience
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EDUCATION

University of California, Los Angeles 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](#) Merit

Advisor: Prof. Sam J. Gilbert

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

University of California, Berkeley 2013 - 2015

[B.A. Psychology, \(Minor\) Education](#) Departmental Honors

Advisors: Prof. Alison Gopnik, Dr. Adrienne O. Wente

Thesis: A cross-cultural study on causal inferences (Published)

SELECTED EXPERIENCES

Cognitive Scientist 2021 - 2022

[Neurolee Therapeutics, Singapore](#)

- Designed and implemented digital cognitive games in flagship product that led to company's growth from Seed to Series A
- Built product roadmap and triaged product features through analyzing behavioral and wearable data from clinical trial
- Worked with a diverse team of experts, including UX designers, software developers, and game developers, across Asia, USA and Europe to implement content, strategies and ideas

Data Scientist 2019 - 2021

[Clinical Imaging Research Centre, NUS, Singapore](#)

- Performed MR data analysis to evaluate the efficacy of a brain-computer interface intervention for stroke patients
- Designed and trained a 3D U-Net model to automate stroke lesion segmentation in structural MR brain images
- Analyzed health habit data (e.g. sleep duration, screen time) from 10,000+ participants to examine their influence on brain health

Data Analyst 2018 - 2019

[Datature, Singapore](#) Awards

- Assisted clients with decision support through data insights
- Won the 2019 Rolls-Royce Data Innovation Challenge (Grand Prize SGD\$60,000) by building a machine learning algorithm for an API that was designed to make airline industry more efficient

Other Academic Positions [Details](#)

Research Intern, Harvard Medical School, USA 2021 - Now

Newsletter Editor, Society for Neuroscience, SG 2021 - 2022

Research Associate, Clinical Brain Lab, NTU, SG 2016 - 2018

RESEARCH INTERESTS

Clinical Neuroscience

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

Research Methods

- Behavioral Experiments
- Wearable Technology
- Structural and functional Neuroimaging

Data Science

- Conventional Statistics
- Machine Learning
- Deep Learning

SKILLS AND LANGUAGES

| | | | | | | |
|--------------------|--------------------|---------------|-----------|----------|------|-----|
| Python | R | Matlab | Bash | SQL | HTML | CSS |
| Statistics | Machine Learning | Deep Learning | Web Dev | | | |
| Data Visualization | Project Management | LaTeX | Git | | | |
| PyTorch | Tensorflow | Caret | Cantonese | Mandarin | | |

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