

CONTACT

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Los Angeles, CA
Available from September 2026
F-1 OPT/CPT authorized
Open to relocation

EDUCATION

PhD Neuroscience

University of California, Los Angeles
Exp. 2026 · Dean's Scholar Award

M.Comp Artificial Intelligence

National University of Singapore
2020 – 2022 · GPA 4.1 / 5.0

MRes Cognitive Neuroscience

University College London
2015 – 2016 · Merit

BA Psychology

University of California, Berkeley
2013 – 2015 · Departmental Honors

TECHNICAL SKILLS

Languages & Core

Python · R · MATLAB · Bash · SQL · Git · HTML/CSS · LaTeX · Markdown

AI / LLM & Agentic

LangChain · LangGraph · MCP · Prompt engineering · RAG pipelines · Claude Code

AI Safety & Evaluation (in progress)

Behavioral evaluation · Red teaming methodology · Harm assessment · Model evaluation (Evals/Inspect)

ML / Deep Learning

PyTorch · TensorFlow · Scikit-learn · Caret · HuggingFace

Neuroimaging and Analysis

sMRI · fMRI (task-based, resting-state) · DWI/DTI · FSL · FreeSurfer · SPM · CONN · MRtrix3 · Normative modeling · ICA · MVPA

Data Viz & BI

Matplotlib · Seaborn · ggplot · Power BI · Tableau

Infrastructure & Automation

Docker · Singularity · HPC clusters · Zapier · Make.com · Remote servers

Research Tools

PsychoPy · E-Prime · Qualtrics · MTurk

Communication & Content

Canva · Video editing · Mailchimp · WordPress

Hoki Fung

Computational Neuroscientist · Applied Research Scientist · Intelligence in Minds & Machines

PROFILE

PhD candidate in Computational Neuroscience at UCLA (exp. August 2026), with a longstanding academic passion for understanding intelligence — in both biological and artificial systems. Over 12 years of research and industry experience across academia, clinical research, and startups in the US, UK, and Singapore, spanning cognitive science, neuroimaging, machine learning, and applied AI. Proven ability to bridge rigorous scientific research and real-world product development, with hands-on experience in digital health, neurotech, and computer vision. Seeking a full-time position in applied AI research, AI safety evaluation, or computational health; available from September 2026, authorized to work in the US (F-1 OPT/CPT), and open to relocation.

EXPERIENCE

PhD Candidate · Graduate Student Researcher

2022 – Present

UCLA · Dept. of Psychiatry & Biobehavioral Sciences · Advisor: Prof. Carrie E. Bearden · Los Angeles, CA

- ▶ Led 5 independent first-authored projects applying machine learning and normative modeling to multimodal neuroimaging data (sMRI, fMRI, DWI) to study how rare genetic variants influence brain development (N > 500); first paper published in Biological Psychiatry: Global Open Science.
- ▶ Collaborated on multiple neuroimaging projects resulting in 4 co-authored publications in Molecular Psychiatry, Biological Psychiatry, and Neuropsychopharmacology.
- ▶ Supervised undergraduate researchers and served as TA for psychiatry courses at UCLA.
- ▶ Built lab automation tools including a Slack-to-Notion pipeline for paper tracking (Zapier, Make.com) and maintained lab servers and GitHub repositories.

Science Consultant

Apr 2025 – Present

Vibe Science · Neurotech / Healthtech startup · Pre-seed → Seed · Remote / Singapore

- ▶ Designed EEG, HRV, and wearable-based studies to evaluate device protocols — from mechanistic physiological validation to efficacy testing of stimulation outcomes in target populations.
- ▶ Synthesized peer-reviewed evidence into internal science database informing product strategy and investor materials.
- ▶ Liaised with FDA and clinical trial consultants to build a regulatory roadmap and advance the product toward clinical validation.

Graduate Research Intern — Neuropsychiatry

2021 – 2025

Harvard Medical School · Advisor: Prof. Matthew D. Sacchet · Remote / Boston, MA

- ▶ Analyzed clinical trial neuroimaging data (FAST-MAS, N=64) using individualized brain parcellation to measure how pharmacological treatment reshapes functional network organization — identifying precision medicine biomarkers for transdiagnostic anhedonia; published in Neuropsychopharmacology (2025).

Applied Machine Learning Specialist — Medical Imaging

2022 – 2024

Datature · Computer vision AI platform startup · Pre-seed → Seed · Remote / Singapore

- ▶ Bridged clinical and engineering teams as domain expert — scoping client neuroimaging and medical imaging requirements, translating them into technical specifications, and communicating AI/ML concepts to non-technical stakeholders.
- ▶ Produced technical documentation and video tutorials for client onboarding and platform adoption.

NUS MCOMP COURSEWORK

Artificial Intelligence ·
2020 – 2022 · Python

- ▶ Neural Networks & Deep Learning I
- ▶ Neural Networks & Deep Learning II
- ▶ AI Planning & Decision Making
- ▶ Uncertainty Modeling in AI
- ▶ Intelligent System Deployment
- ▶ Knowledge Discovery & Data Mining
- ▶ 3D Computer Vision
- ▶ Information Visualisation
- ▶ Mining Web Data for Business Insights
- ▶ Digital Entrepreneurship

NEUROMATCH ACADEMY

Computational Neuroscience ·
Summer 2020 · Python

- ▶ Machine Learning
- ▶ Deep Learning
- ▶ Linear & Dynamical Systems
- ▶ Biological Neuron Models
- ▶ Bayesian Decision-Making
- ▶ Optimal Control
- ▶ Reinforcement Learning
- ▶ Network Causality

HARVARD DATA SCIENCE CERT.

Data Science and Visualization ·
2018 – 2020 · R

- ▶ Data Science: R Basics
- ▶ Data Science: Visualization
- ▶ Data Science: Probability
- ▶ Data Science: Inference and Modeling
- ▶ Data Science: Productivity Tools
- ▶ Data Science: Wrangling
- ▶ Data Science: Linear Regression
- ▶ Data Science: Machine Learning
- ▶ Data Science: Capstone

OTHER TRAINING

- ▶ NeuroAI Summer Course, Neuromatch Academy (July 2026)
- ▶ MRtrix3 Diffusion MRI Workshop, Chang Gung University (July 2024)
- ▶ Advanced Statistical Methods in Neuroimaging and Genetics, University of Utah (April 2024)

AWARDS

- ▶ NEURO2024 Travel Award for Foreign Scientists, JSBP (2024)
- ▶ Graduate Dean's Scholar Award, UCLA (2022–2024)
- ▶ Top Consumer AI Product, SLINGSHOT EnterpriseSG (2019)
- ▶ Winner, Data Innovation Challenge, Rolls-Royce (2019)

LANGUAGES

English · Cantonese · Mandarin

Applied Research Scientist

Neurolee Therapeutics · Digital therapeutics startup · Series A · Singapore

- ▶ Defined cognitive game selection, feature prioritization, and clinical assessment questionnaires for a digital therapeutic app helping patients with early cognitive decline manage daily health and cognitive activities; deployed through hospital partners across the US.
- ▶ Synthesized Alzheimer's and BCI literature and analyzed user engagement data to continuously improve product features and clinical relevance.

Data Scientist — Clinical Neuroimaging

2019 – 2021

National University of Singapore · Advisors: Profs. Michael Chee & BT Thomas Yeo · Singapore

- ▶ Analyzed large public neuroimaging dataset (ABCD study, N > 10,000) using ML and statistical modeling to study sleep, cognition, and brain structure in healthy children; published in Journal of Adolescent Health.
- ▶ Initiated development of a deep learning pipeline for automated brain lesion segmentation in stroke patients, addressing limitations of standard segmentation tools on lesioned brains.
- ▶ Worked with stroke neuroimaging data; developed and open-sourced a Python tool for 3D brain image midsagittal flipping (NIfTI format) enabling lateralization analyses — available on GitHub.

Research Associate — Cognitive Neuroscience

2016 – 2018

Nanyang Technological University · Advisor: Prof. Annabel Chen · Singapore

- ▶ Led a multimodal neuroimaging study (N > 100, healthy and ADHD) from experimental design through data collection and manuscript write-up; standardized lab preprocessing pipelines.

SELECTED PUBLICATIONS

- ▶ **Fung, H.** et al. (2026). Convergent and Divergent Cerebellar Alterations in 22q11.2 Copy Number Variants. *Biological Psychiatry: Global Open Science*. doi:10.1016/j.bpsgos.2026.100718
- ▶ **Fung, H.** et al. (2025). Selective KOR antagonist alters functional patch sizes in individualized brain system. *Neuropsychopharmacology*, 50(9), 1430–1438. doi: 10.1038/s41386-025-02125-z
- ▶ **Fung, H.** & Hoftman, G.D. (2024). Toward an Integrated Framework for Advancing Psychosis Research. *Biological Psychiatry: CNNI*, 9(9), 849–851. doi:10.1016/j.bpsc.2024.07.007
- ▶ **Fung, H.** et al. (2023). Adherence to 24h movement recommendations and health indicators in early adolescence: Cross-sectional and longitudinal associations in the ABCD study. *Journal of Adolescent Health*, 72(3), 460-470. doi:10.1016/j.jadohealth.2022.10.019
- ▶ Gilbert, S. J. & **Fung, H.** (2018). Decoding intentions of self and others from fMRI. *NeuroImage*, 172, 278-290. doi:10.1016/j.neuroimage.2017.12.090

SELECTED CONFERENCE PRESENTATIONS

- ▶ (2026, Apr) Comparative Analysis of Cerebellar Volume in 22q11.2 and 3q29 Deletion Syndromes Using Normative Modeling. *SOBP Annual Meeting, New York, USA*
- ▶ (2024, Jul) Reduced Contralateral Cerebello-Cortical Functional Connectivity in 22q11.2 Deletion Syndrome. *NEURO2024, Fukuoka, Japan [Travel Award]*
- ▶ (2024, May) 22q11.2 Gene Dosage Effects on Cerebello-Cortical Functional Connectivity. *SOBP Annual Meeting, Austin, USA*
- ▶ (2023, Apr) 22q11.2 Gene Dosage Effects on Regional Cerebellar Volume Phenotypes. *SOBP Annual Meeting, San Diego, USA*
- ▶ (2021, Jun) Associations of Sleep Duration with Global Cognition and Gray Matter Volume in Children aged 9–11. *OHBM Annual Meeting, Virtual*
- ▶ (2019, Jun) An fMRI investigation of hot and cool executive functions in adults with ADHD. *OHBM Annual Meeting, Rome, Italy*

Full list of publications and conference presentations at hokifung.com/publications