GLADIA HOTAN

https://gladiahotan.github.io/ ◇ LinkedIn

EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE
Singapore

MBA, Specialization in Healthcare Management
Aug 2023–present

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Cambridge, MA, USA

PhD, Brain and Cognitive Sciences
Sep 2014–Aug 2020
Thesis: State-space Modeling and Electroencephalogram Source Localization
GPA: 4.9/5.0
of Slow Oscillations with Applications to the Study of General Anesthesia,
Sedation and Sleep
Thesis Advisors: Dr Patrick Purdon, Dr Emery Brown

MIT Sloan Healthcare Certificate
Sep 2019–May 2020
H-Lab Action Learning Project: Quality Predictive Modeling for Diabetes and
Hypertension

CALIFORNIA INSTITUTE OF TECHNOLOGY
Pasadena, CA, USA

BS, Physics (with Honor)
Sep 2009–May 2013
Thesis: Experimental Analysis of Dynamic Interactions between Micrometer-
GPA: 3.9/4.0
Scale Stainless Steel Spheres
Thesis Advisor: Dr Chiara Daraio

WORK EXPERIENCE

Research Scientist, Institute of High Performance Computing
Nov 2020–present
Research Engineer, Inst. for Infocomm Research & Inst. of Microelectronics
Jul 2013–Jul 2014

AWARDS

NUS Part-Time MBA Scholarship (2023)
A⋆STAR National Science Scholarship (BS *2009*, PhD *2014*)

ACTIVITIES

LEADERSHIP

NUS MBA Healthcare Club Vice-President
Sep 2023–present

President of MIT Singaporean Students' Society (MITSSS)
Apr 2016–Mar 2017
Led a 5-person executive committee to organize 7 social events for Singaporeans in Boston and the
MIT community. Our largest event had 50 volunteers cooking Singaporean food for 200 guests.

VOLUNTEERING

CDAC Supervised Homework Group (SHG)
Mar 2023–present
Giving free tuition and organizing fun activities for low-income students aged 10 to 12 years old (3
hours/week)
Joined the Mid-Year Camp Committee and organised camp games

Massachusetts General Hospital (MGH Volunteer Department)
Nov 2018–Nov 2019
Collected Patient Reported Outcome Measures surveys from arthroplasty patients (4 hours/week)

PUBLICATIONS

- He M, Das P, Hotan G, Purdon PL. **Switching state-space modeling of neural signal
  dynamics.** PLOS Computational Biology. 2023 Aug 28;19(8):e1011395. [Link]

- Manzano GS, Holroyd KB, Kaplan T, Bhattacharyya S, Chitnis T, Hotan G, Zurawski J, Galetta KM, Mateen FJ. **Disease modifying therapy management of multiple sclerosis after stem cell therapies: A retrospective case series.** Multiple Sclerosis and Related Disorders. 2022 Jul 1;63:103861.[Link]

- Rice DR, Kaplan TB, Hotan GC, Vogel AC, Matiello M, Gillani RL, Hutto SK, Ham AS, Klawiter EC, George IC, Galetta K. **Electronic pill bottles to monitor and promote medication adherence for people with multiple sclerosis: a randomized, virtual clinical trial.** Journal of the Neurological Sciences. 2021 Sep 15;428:117612. [Link]

- Stephen EP, Hotan GC, Pierce ET, Harrell PG, Walsh JL, Brown EN, Purdon PL. **Broadband slow-wave modulation in posterior and anterior cortex tracks distinct states of propofol-induced unconsciousness.** Scientific reports. 2020 Aug 13;10(1):13701. [Link]

- Sokolov E, Abdoul Bachir DH, Sakadi F, Williams J, Vogel AC, Schaekermann M, Tassiou N, Bah AK, Khatri V, Hotan GC, Ayub N. **Tablet-based electroencephalography diagnostics for patients with epilepsy in the West African Republic of Guinea.** European journal of neurology. 2020 Aug;27(8):1570-7. [Link]

- Mateen FJ, Vogel AC, Kaplan TB, Hotan GC, Grundy SJ, Holroyd KB, Manalo N, Stauder M, Videnovic A. **Light therapy for multiple sclerosis-associated fatigue: a randomized, controlled phase II trial.** Journal of Neurology. 2020 Aug;267:2319-27. [Link]

- Anand P, Hotan GC, Vogel A, Venna N, Mateen FJ. **Progressive multifocal leukoencephalopathy: A 25-year retrospective cohort study.** Neurology-Neuroimmunology Neuroinflammation. 2019 Nov 1;6(6). [Link]

- Williams J, Cisse FA, Schaekermann M, Sakadi F, Tassiou NR, Bah AK, Hamani AB, Lim A, Leung EC, Fantaneau TA, Milligan T. **Utilizing a wearable smartphone-based EEG for pediatric epilepsy patients in the resource poor environment of Guinea: A prospective study.** Neurology. 2019 Apr;92(15 Supplement)N5.001. [Link]

- Mateen FJ, Manalo NC, Grundy SJ, Houghton MA, Hotan GC, Erickson H, Videnovic A. **Light therapy for multiple sclerosis-associated fatigue: Study protocol for a randomized controlled trial.** Medicine. 2017 Sep;96(36). [Link]

- Hotan GC, Struck AF, Bianchi MT, Eskandar EN, Cole AJ, Westover MB. **Decision analysis of intracranial monitoring in non-lesional epilepsy.** Seizure. 2016 Aug;40:59-70. [Link]

TEACHING

GRADUATE TEACHING

HST.S56: Introduction to Closed-Loop Control of Physiological Systems, Massachusetts Institute of Technology (2019, 2020) (Course Instructor)
Worked as part of a 5-person team to design and teach this course.

9.014: Quantitative Methods for Neuroscience, Massachusetts Institute of Technology (2016) (Teaching Assistant)

9.00: Introduction to Psychological Science, Massachusetts Institute of Technology (2015) (Teaching Assistant)

HIGH SCHOOL OUTREACH

Introduction to Neuroscience, Seoul High School (2021, 2018), Seoul Science High School (2018, 2015), Myeonmok High School (2015) (Course Instructor)
Designed and taught a 5-day course introducing cellular and molecular, systems, cognitive, computational and clinical neuroscience to high school students in Korea.

Introduction to University-Level Mathematics Techniques, Temasek Junior College (2013) (Course Instructor)
Designed and taught an 8-week course introducing linear algebra, vector calculus, Fourier series and differential equations to high school students in Singapore.

SKILLS

Languages: English, Chinese (Mandarin)
Programming languages: Python, R, Matlab, Mathematica