Wei-Hsiang LIN

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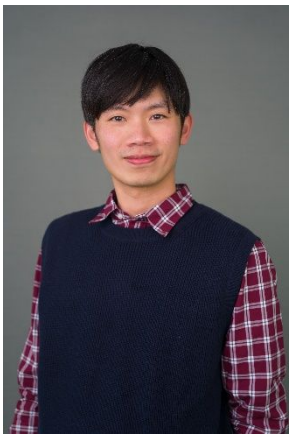

Strengths

- Expertise in **reinforcement learning**
- Proficient in neuroimaging using **EEG** and **fMRI** with **Python** and **MATLAB**
- Advanced knowledge of **machine learning** and **statistical** techniques
- **Project management** proficiency

Education

Brain Mind Institute — Lausanne, Switzerland
Swiss Federal Institute of Technology, Lausanne (EPFL) — Aug. 2019 ~ present
Ph.D. candidate (Doctoral assistant)

Institute of Neuroscience, National Yang-Ming University (YMU) — Taipei, Taiwan
M.S. , Neuroscience — Sep. 2012 ~ July 2014

Department of Information management — Taoyuan, Taiwan
National Central University — Sep. 2008 ~ June 2012
B.S. , Information Management

Core Experience

Brain Mind Institute (EPFL) — Lausanne, Switzerland — Aug. 2019 ~ present

- Reinforcement learning experiments in healthy aging and schizophrenia patients
  - Designing experiments
  - Utilizing reinforcement learning models for computational analysis
  - Bilateral cooperation with international team, presenting results in a conference and drafting papers.
- Online behavioral experiments
  - Collecting and analyzing large-scale data in the COVID-19-related limitations.
- EEG experiment
  - Designing experiments, collecting data, and performing EEG recordings.
  - Conducting EEG data analysis.

Institute of Neuroscience (YMU) — Taipei,Taiwan

Research Assistant Dec. 2015 ~ June 2019

- Animal neuroimaging study (spatial memory in mice)
    - Wet lab experience with mice in-vivo two-photon microscope.
    - Analyzing behavioral and neuroimaging data with advanced image processing techniques.

Institute of Neuroscience (YMU) Taipei,Taiwan

- Human fMRI experiment Sep. 2012 ~ July 2014
    - Design, implement, and troubleshoot experiments.
    - Modeling and analyzing behavioral and fMRI data.

Additional Experience

Mentoring college student project Lausanne, Switzerland

Social dominance and decision-making Feb. 2022 ~ July 2022

- Mentored an undergraduate student to successfully complete her bachelor's project

Teaching assistant Lausanne, Switzerland

- Served as a teaching assistant for master's level courses in Neuroscience III and Understanding Statistics. Feb. 2021 ~ July 2022
- Assisted in the development of a hybrid learning environment.

Developing personal website Lausanne, Switzerland

- Developed my personal website utilizing Hugo and JavaScript. Feb. 2022 ~ present
- Tracking the website using Google Analytics tool.

Military services Taichung, Taiwan

Armourer corporal Nov. 2014 ~ Nov. 2015

- Directed a team of five in weapons management and maintenance for the military.

Bachelor project Taoyuan, Taiwan

- Developed an Android app that combines to-do lists and personal milestone events. July 2011 ~ June 2012

Cultural services Taoyuan, Taiwan

- Organized and conducted a summer camp at rural elementary schools, providing educational opportunities for local children. June 2009 ~ Aug. 2009

Technical Skills

Computational Modelling:
Reinforcement learning, decision theories, psychophysics

IT Proficiencies:
Python, MATLAB, JavaScript, Tableau, Gorilla (online experiment platform), image processing techniques, EEG analysis using EEGLAB and Fieldtrip, fMRI analysis using FSL, MS Office Suite

Data Science Expertise:
Statistical analysis, various machine learning techniques, network analysis, cluster analysis, data visualization

Project Management:

Managed various projects ranging from lab-based to clinical studies, supervised bachelor's projects, handled diverse data structures from behavioral to neuroimaging, utilized tools like Notion and GitHub for efficient project management

Publications

Gordillo, D., da Cruz, J.R., Chkonia, E., **Lin, W.-H**., Favrod, O., Brand, A., Figueiredo, P., Roinishvili, M., and Herzog, M.H. (2022). The EEG multiverse of schizophrenia. Cereb. Cortex, bhac309.

Modirshanechi, A., Xu, H.A., **Lin, W.-H**., Herzog, M.H., and Gerstner, W. (2022). The curse of optimism: a persistent distraction by novelty. (under revision at Nature Communications)

Lin, W.-H., Gardner, J.L., and Wu, S.-W. (2020). Context effects on probability estimation. PLOS Biol. 18, e3000634.

Academic activities

International Conference of Cognitive Neuroscience 2022 — Helsinki, Finland
Title: *Social dominance and decision making* — May 2022

European Brain and Behavior Society 2021 — Lausanne, Switzerland
Title: *Ageing and reinforcement learning* — Sept. 2021

RIKEN BSI Summer Program 2014 — Tokyo, Japan
Title: *Absolute or relative? Neural coding of reward probability in the ventromedial prefrontal cortex* — July 2014

Society for Neuroscience 43rd Annual Meeting — San Diego, USA
Title: *Absolute or relative? Examining the effect of context on neural coding of reward probability* — Nov. 2013

Awarding College Student Research Training Fellowship from the National Science Council in Taiwan. — Taoyuan, Taiwan — July 2010 ~ June 2011

Languages

Chinese (Mandarin): Native speaker

English: Fluent professional proficiency

French/German: Intermediate (A2) proficiency

Interests

- Participating in a baseball team as a player.
- Serving as vice-captain of a table tennis team for two years.
- Enjoying hiking and working out.
- Playing the violin for several years.
- Reading economic and financial magazines and engaging in investment activities.