LingYu Meng

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https://github.com/Lingyu-Meng

PROFESSIONAL SUMMARY

Master student with expertise in neuroscience, statistics, and programming. Skilled in using statistical methods and machine learning techniques to analyse behavioural and neural data. Proficient in MATLAB, R, and other programming languages.

EDUCATION

University of Sheffield

MSc, Systems Neuroscience   09/2023 - Present

Beijing Technology and Business University

BSc, Statistics   09/2017 - 07/2021

RESEARCH EXPERIENCE

University of Sheffield

Master Student   12/2023 - Present

Advisor: Dr. Hazem Toutounji, Dr. Alekhya Mandali

Individual difference in processing reward, loss, and uncertainty

- Planing to build computational model to investigate the relationship of intolerance of uncertainty, trait anxiety and risk taking

Voluntary Research Assistant   09/2023 - 11/2023

Advisor: Prof. Tom Stafford

- Visualised how group discussion affect group performance in numeric estimation tasks (GitHub)

Beijing Normal University

Full-Time Research Assistant   08/2022 - 04/2023

Advisor: Prof. Yina Ma

- Conducted literature reviews on transcranial alternative current stimulus (tACS)
- Integrated MRI and CT to localise and label electrodes of intracranial electroencephalography (iEEG) by FieldTrip and FreeView
- Utilised LASSO, latent profile analysis (LPA), PCA to analysis behaviour pattern in inter-group conflicts
- Performed neural data cleaning, wavelet transform and time frequency analysis
- Utilised random forest to decoding economic games behaviour from neural data

Voluntary Research Assistant   06/2021 - 08/2022

Advisor: Prof. Yina Ma; cooperated with: Dr. Hejing Zhang;

The mechanism of leadership helping group survival from between group conflict

- Conducted literature reviews on evolutionary games theory

- Programmed evolution models to investigate the role of leadership in inter-group conflicts using MATLAB

Voluntary Research Assistant   09/2019 - 10/2019

Advisor: Prof. Xinlin Zhou

- Prepared questionnaires

COURSEWORK

Remote collaboration fuses more citable ideas (Now)   04/2024
- Re-analysed and visualised the data published in Nature and confirmed the presence of selection bias. In contrast to the original paper, I found that remote collaboration may exhibit higher quality. (Github)

The optogenetic revolution is transforming neuroscience". Discuss   11/2023
Essay (here)

How lesioned studies and neuroimaging improve our understanding   01/2024
in social cognition
Essay (here)

CONFERENCE POSTERS

Lingyu, M. (2024, Mar 25-28). *Neural Mechanisms Underlying the Enhanced Cooperation Induced by Multicultural Experience* [Poster presented]. the Society for Social Neuroscience annual meeting, Tsukuba, Ibaraki, Japan. (poster)
The poster above won the Open Science Cash Prize (5000 JPY).

SKILL

Programming Language

Proficient in MATLAB (FieldTrip, PTB), R (lme4, brms, tm, tidyLPA).
Experience with shell (server with Linux), C++, C, Python.

Software

VNC Server/VNC Viewer (server), SimNIBS, MRIcron, SPSS.

Statistic

Statistical Learning (SVM, RF, GLMM, PCA, Clustering), EFA/ CFA, LPA, LASSO/ Ridge Regression/ Elastic Net, BP Neural Network, Basic Statistic (t-test, ANOVA and so on).

Mathematic

Advanced Algebra, Discrete Mathematics, Applied Stochastic Process, Probability Theory, Operational Research, Numerical Analysis, Mathematical Analysis, Ordinary Differential Equation.

OTHER EXPERIENCE

Beijing Technology and Business University Debating Society (1st class society)
Chairman   06/2019 - 06/2020