Pindong Chen

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Google Scholar: https://scholar.google.com/citations?user=AasniyYAAAAJ

Education

- **PhD in Neuroimaging**
  Institute of Automation, Chinese Academy of Sciences (2019-2024)
  Thesis: *Heterogeneity of functional networks in Alzheimer's disease*
  Supervisor: Prof. Yong Liu (BUPT/CASIA)

- **Visiting PhD student in Neuroimaging**
  University of Cambridge (2023.9-2024.3)
  Project: *Individualized functional networks construction in clinical dementia dataset*
  Supervisor: Dr. Timothy Rittman

- **Bachelor in the Internet of Things Engineering**
  North China Electric Power University (2015-2019)
  Thesis: *Analysis system for Hippocampus Radiomics in Alzheimer's disease*
  Ranking 1/25

Research Experience

- Brainnetome Center, Institute of Automation, Chinese Academy of Sciences (2018-2024)

  a. Functional Alterations in Episodic Memory Circle of Alzheimer's Disease

  b. U-net Framework for Hippocampus Segmentation

  c. Functional Network Heterogeneity in Alzheimer's Disease

  d. Structural Connectome Analysis on Patients with Essential Tremor after MRgFUS

- School of Artificial Intelligence, University of Chinese Academy of Sciences (March-Jun, 2020)
  DenseNet-based Diabetic Retinopathy Grading-ISBI 2020 competition
  Based on the DenseNet architecture, an end-to-end model was established to classify diabetic retinal vascular lesion images. The classification accuracy rate reached 73%, ranking in the top 1 0% of the leaderboard.

Publications

- **Chen P**, Zhao K, Zhang H, Wei Y, Wang P, Wang D, et al. Altered global signal topography in Alzheimer's disease. EBioMedicine. Feb 7 2023;89:104455

- **Chen P#,** Yao H#, Tijms BM, Wang P, Wang D, Song C, et al. Four Distinct Subtypes of Alzheimer's Disease Based on Resting-State Connectivity Biomarkers. Biol Psychiatry. May 2023

- Jing R#, **Chen P#**, Wei Y, Si J, Zhou Y, Wang D, et al. Altered large-scale dynamic connectivity patterns in Alzheimer's disease and mild cognitive impairment patients: A machine learning study. Hum Brain Mapp. Mar 29 2023

- **Chen P**, Zhang S, Zhao K, Kang X, Rittman T, Liu Y. Robustly uncovering the heterogeneity of neurodegenerative disease by using data-driven subtyping in neuroimaging: a review. Brain Research. 2023.

- Zhao K, **Chen P**, Alexander-Bloch A, Wei Y, Dyrba M, Yang F, et al. A neuroimaging biomarker for Individual Brain-Related Abnormalities In Neurodegeneration (IBRAIN): a cross-sectional study[J]. Eclinicalmedicine, 2023, 65.

Grants and Awards

2023 Chinese National Scholarship for PhD Student (~£3400)
2023 International Joint PhD Training Program of the University of Chinese Academy of Sciences (~£9500)
2022 OHBM 2022 Merit Award ($2000)
2022 Pan Deng Scholarship for PhD Student (~£120)
2019 Excellent Graduate in Beijing / Excellent Graduate in North China Electric Power University
2016~2019 First Class Scholarship for Bachelor Student (~£1000)

Skills

- Python, Matlab, R, Bash

- Expertise in pre-processing and analysis of MRI [CAT12, fMRIprep, Connectome Workbench, Nilearn, Nibabel, Singularity]

- Machine Learning libraries (PyTorch, Scikit-learn, Numpy)

- Expertise with Partial Least Square (PLS) Analyses and Transcriptomic analyses (Allan Brain Atlas)

- Expertise with large clinical and imaging datasets (ADNI/PPMI/OASIS/CamCAN/HCP)

- High-performance computing using Slurm

- Web development

Presentation

- Oral Session at Organization for Human Brain Mapping 2022

- MICS 2022 Student Short Video Speech Contest

- Poster presentation at Organization for Human Brain Mapping 2021