Junhao **Wen** PhD

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 \square Google Scholar:https://scholar.google.com/citations?user=4Wq $_FukAAAJhl=en$

☑ GitHub:https://github.com/anbai106



My research lies on the application of machine learning, neuroimaging and genetics in brain aging and disorders. Specifically, using machine learning and neuroimaging, I aim to dissect neuroanatomical heterogeneity in various brain disorders. Furthermore, my research aims to bridge the knowledge in imaging and genetics, in order to better understand their underlying interactions and associations.

EDUCATION

2015-2019 PhD in Computer Science Sorbonne University, Paris, France

2012-2015 Master in Electronic Engineering

Beihang University, Beijing, China

2008-2012 Bachelor in Electronic Engineering Beihang University, Beijing, China



RESEARCH SKILLS

Programming languages Python, R, Bash

Software and frameworks Machine learning (Scikit-learn, TensorFlow, Pytorch), Neuroimaging (Nipype, FreeSurfer, FSL,

ANTs, SPM), Genome (Plink, PRSice)

Scientific writing Microsoft Word, LTFX, Overleaf, Inkscape

Development tools PyCharm, RStudio, GitHub

> Others HTML, CSS



RESEARCH EXPERIENCE

August 2019

Postdoctoral fellow

August 2021 CBICA lab, University of Pennsylvania, USA

> Neuroanatomical heterogeneity in brain diseases, working with Christos Davatzikos Neuroimaging Machine learning

October 2015

June 2019

ARAMIS lab, Sorbonne University, INRIA, CNRS, INSERM, Paris, France

- > Four-year PhD training under the supervision of Olivier Colliot and Anne Bertrand
- > Software developer for Clinica
- > PhD dissertation: Structural and microstructural neuroimaging for diagnosis and tracking of neurodegenerative diseases

Neurodegenerative disease Neuroimaging Machine learning

July 2017 October 2017

Visiting scholar

CMIC lab, University College London (UCL), London, UK

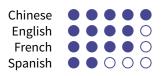
> Collaboration on a NODDI paper: Neurite density is reduced in the presymptomatic phase of C9orf72 disease

FTLD Clinical study Neuroimaging

- > Wen, J., Thibeau-Sutre, E., Diaz-Melo, M., Samper-González, J., Routier, A., Bottani, S., Dormont, D., Durrleman, S., Burgos, N., Colliot, O. and Alzheimer's Disease Neuroimaging Initiative, 2020. Convolutional neural networks for classification of Alzheimer's disease: Overview and reproducible evaluation. Medical image analysis, 63, p.101694.
- > Bertrand, A., Wen, J. (Co-first author), Rinaldi, D., Houot, M., Sayah, S., Camuzat, A., Fournier, C., Fontanella, S., Routier, A., Couratier, P. and Pasquier, F., Habert, M., Hannequin, D., Martinaud, O., Caroppo, P., Levy, R., Dubois, B., Brice, A., Durrleman, S. and Colliot, O., Le Ber., I. 2018. Early Cognitive, Structural, and Microstructural Changes in Presymptomatic C9orf72 Carriers Younger Than 40 Years. JAMA neurology, 75(2), pp.236-245.
- > Wen, J., Zhang, H., Alexander, D.C., Durrleman, S., Routier, A., Rinaldi, D., Houot, M., Couratier, P., Hannequin, D., Pasquier, F. and Zhang, J., Colliot, O., Le Ber., I. and Bertrand, A. 2018. Neurite Density is Reduced in the Presymptomatic Phase of C9orf72 Disease. J Neurol Neurosurg Psychiatry, pp.jnnp-2018.
- > Wen, J., Samper-González, J., Bottani, S., Routier, A., Burgos, N., Jacquemont, T., Fontanella, S., Durrleman, S., Epelbaum, S., Bertrand, A. and Colliot, O., 2021. Reproducible evaluation of diffusion MRI features for automatic classification of patients with Alzheimer's disease. Neuroinformatics, 19(1), pp.57-78.
- > Samper-González, J., Burgos, N., Bottani, S., Fontanella, S., Lu, P., Marcoux, A., Routier, A., Guillon, J., Bacci, M., Wen, J. and Bertrand, A., Bertin, H., Habert, M., Durrleman, S., Evgeniou, T. and Colliot., O. 2018. Reproducible evaluation of classification methods in Alzheimer's disease: framework and application to MRI and PET data. Neuroimage, 2018.
- > Marcoux, A., Burgos., Bertrand., Teichmann., Routier A., <u>Wen J.</u>, Samper-Gonzalez J., Bottani, S., Durrleman, S., Habert, M. and Colliot, O. 2018. An Automated Pipeline for the Analysis of PET Data on the Cortical Surface. Frontiers in Neuroinformatics, 2018.
- > Ansart, M., Epelbaum, S., Bassignana, G., Bône, A., Bottani, S., Cattai, T., Couronne, R., Faouzi, J., Koval, I., Louis, M. and Thibeau-Sutre, E., <u>Wen, J.</u>, 2020. Predicting the progression of mild cognitive impairment using machine learning: a systematic, quantitative and critical review. <u>Medical image analysis</u>, p.101848.
- > Routier A, Burgos N, Díaz M, Bacci M, Bottani S, El-Rifai O, Fontanella S, Gori P, Guillon J, Guyot A, Hassanaly R, Jacquemont T, Lu P, Marcoux A, Moreau T, Samper-González J, Teichmann M, Thibeau-Sutre E, Vaillant G, Wen, J., Wild A, Habert M-O, Durrleman S and Colliot O (2021) Clinica: An Open-Source Software Platform for Reproducible Clinical Neuroscience Studies. Front. Neuroinform. 15:689675. doi: 10.3389/fninf.2021.689675
- > Yue, L., Hu, D., Zhang, H., Wen, J., Wu, Y., Li, W., Sun, L., Li, X., Wang, J., Li, G. and Wang, T., 2021. Prediction of 7-year's conversion from subjective cognitive decline to mild cognitive impairment. Human brain mapping, 42(1), pp.192-203.

> Wen, J., Varol, E., Chand, G., Sotiras, A. and Davatzikos, C., 2020, October. MAGIC: Multi-scale Heterogeneity Analysis and Clustering for Brain Diseases. In International Conference on Medical Image Computing and Computer-Assisted Intervention (pp. 678-687). Springer, Cham.







- > Music
- > Extreme sports
- > Travel