CURRICULUM VITAE

Dr. Jingwen Yan

Associate Professor
Bioinformatics Program Director
Department of Biomedical Engineering and Informatics
Luddy School of Informatics, Computing and Engineering
Indiana University Indianapolis
535 W Michigan Street, IT 481
Indianapolis, IN, 46202
Email: jingyan@iu.edu

EDUCATION

PhD, Bioinformatics. Indiana University, United States. (2015).

MS, Artificial Intelligence. Huazhong University of Science and Technology, China. (2009).

BS, Electrical Engineering. Nanjing University of Aeronautics and Astronautics, China. (2007).

RESEARCH FOCUS

Integrative analysis of multi-omics and neuroimaging for functional mechanisms and progression profiling of brain disorders like Alzheimer's disease, aimed at better disease understanding and early detection.

Standing in between biomedical and AI community, we are performing highly interdisciplinary research supported by both **NSF (2345235, 1942394)** and **NIH (R01 AG081951)**.

APPOINTMENTS

Program Director of Bioinformatics, Indiana University Purdue University Indianapolis (Now IU Indianapolis), Biomedical Engineering and Informatics. (July 1st, 2022- Present).

Associate Professor of Bioinformatics, Indiana University Purdue University Indianapolis (Now IU Indianapolis), Biomedical Engineering and Informatics. (2022- Present).

Assistant Professor of Bioinformatics, Indiana University Purdue University Indianapolis, BIOHEALTH INFORMATICS. (2016 – 2022).

Adjunct Associate Professor, Indiana University School of Medicine, Department of Radiology and Imaging Sciences. (2022 - present).

Adjunct Assistant Professor, Indiana University School of Medicine, Department of Radiology and Imaging Sciences. (2016 - 2022).

Adjunct Assistant Professor, Indiana University Purdue University Indianapolis, Department of Computer Science. (2017 – 2024).

Adjunct Assistant Professor, Indiana University Purdue University Indianapolis, Department of Electrical and Computer Engineering. (2017 – 2024).

Assistant Research Scientist, Indiana University Network Science Institute, (2015 - 2016).

Adjunct Lecturer, Indiana University Purdue University Indianapolis, BIOHEALTH INFORMATICS. (January 1, 2016 - May 31, 2016).

PROFESSIONAL SERVICE

Organization	Activity	Inclusive Dates
Frontier in Radiology	Review Editor	03/2021-
MICCAI workshop on Multimodal Brain Image Analysis (MBIA 2019)	Organizing Committee Co-chair	01/2019-10/2019
International Conference on Intelligent Biology and Medicine (ICIBM 2019,2020, 2022, 2023)	Program Committee Member	01/2019-06/2022
Artificial Intelligence in Medicine	Program Committee Member	2024
PLOS ONE	Academic Editor	09/2018 – Present
PLOS ONE special issue on Alzheimer's disease	Handling Editor	03/2019-10/2019
BMC Genomics special issue on The International Conference on Intelligent Biology and Medicine (ICIBM 2018)	Editor	04/2018-12/2018
NSF	Study section panelist for GRFP, EPCN and DBI	2020- Present
NIH	Study section panelist on MNG (**Standing member since 2024/10**)	2020- Present

TEACHING (2+2 TEACHING LOAD)

UNDERGRADUATE

Course #	Course Name	Form	Term	Enrollment
INFO-I 201	Math foundations of informatics	Lecture	Fall 2019	7
INFO-B 419	Introduction to bioinformatics	Lecture	Spring 2019	5
INFO-B 406	Biomedical Informatics	Lecture	Fall 2020	8
INFO-I 210	Information Infrastructure I	Lecture	Spring 2021	16
			Spring 2022	19
INFO-B 446	Computational Systems Biology	Lecture	Spring 2021	3
			Spring 2024	5

GRADUATE

Course #	Course Name	Form	Term	Enrollment
INFO-B 590	Application of AI in Biomedical Informatics	Lecture	Fall 2020	12
			Fall 2021	5
			Fall 2023	4
INFO-B 506	Biomedical Informatics	Lecture	Fall 2020	12
			Fall 2021	4
			Fall 2022	17

INFO-B 646	Computational Systems Biology	Lecture	Spring 2020	10
			Spring 2021	13
			Spring 2022	14
			Spring 2024	20
INFO-B 519	INTRODUCTION TO BIOINFORMATICS	Lecture	Spring 2019	8
			Fall 2018	23
			Spring 2023	18
INFO-B 573	PROGR FOR SCIENCE INFORMATICS	Lecture	Fall 2018	31
			Spring 2018	29
			Spring 2017	18
			Fall 2016	31
INFO-B 627	ADV SEM I-BIOINFORMATICS	Lecture	Spring 2020	15
			Spring 2019	24
			Spring 2018	18
INFO-I 790	INFORMATICS RESEARCH ROTATION	Project	Fall 2020	1
		Project	Spring 2021	1
		Project	Spring 2019	1
INFO-B 692	THESIS/PROJECT BIOINFORMATICS	Project	Spring 2019	1
			Spring 2018	1
			Fall 2017	2

PHD STUDENT MENTORING (+ > 20 MASTER/UNDERGRADUATE STUDENTS)

Individual	Program	Role	Inclusive Dates
Neda Emami	PhD	Advisor	01/2024-Present
Mingzhao Tong	PhD	**Co-advisor**	08/2024-Present
Yurika Upadhyaya	PhD	Advisor	08/2023 - Present
Tianchuan Gao	PhD	Advisor	08/2023 - Present
Pradeep Varathan	PhD	Advisor	09/2020 – 05/2024
Linhui Xie	PhD	Advisor	09/2018 – 05/2024
Bing He	PhD	Advisor	09/2019 – 05/2024
Kevin Bach	PhD	Advisor	09/2017 – 05/2018
Danai Chasioti	PhD	Co-advisor	01/2018 – 08/2022

GRANTS

ACTIVE RESEARCH GRANTS/FELLOWSHIPS

Title	Granting Agency	Role	Amount	Dates
R01: Characterizing the progression of Alzheimer's disease with multi-omic genetic and imaging data	NIH/NIA	PI	$1,937,248	09/2024-09/2029
III: Small: Collaborative Research: Fair Data Mining with Insights from Data and Model	NSF	MPI	$597,149	06/2024 – 05/2027
CAREER: Computational strategies for incompleteness and heterogeneity in multi-omic data	NSF	PI	$549,909	06/2020-05/2025

U19: Centrally-linked longitudinal peripheral biomarkers of AD in multi-ethnic populations (CLEAR-AD)	NIH	Co-I	$ 1,962,730	03/2023-02/2028
U01: Ultra-scale Machine Learning to Empower Discovery in Alzheimer's Disease Biobanks (AI4AD)	NIH	Co-I	$2,139,750	08/2020-07/2025

FINISHED RESEARCH GRANTS/FELLOWSHIPS

Title	Granting Agency	Role	Amount	Dates
R01: Informatics Algorithms for Genomic Analysis of Brain Imaging Data	NIH	Co-I	$348,105	07/2020-03/2024
R21: Integrative Predictive Modeling of Alzheimer's Disease	NIH	MPI	$434,500	09/2021-08/2024
U01: Metabolomic Signatures for Disease Sub-classification and Target Prioritization in AMP-AD	NIH	Co-I	$582,750	09/2018-08/2023
R21: Gene co-expression underlying the functional connectivity altered in Alzheimer's disease	NIH	PI	$428,244	09/2019-05/2023
CRII: Computational Methods to Mine Multi–omic Data for Systems Biology of Complex Diseases	NSF	PI	$174,704	06/2018-05/2022
Novel bioinformatics strategies to reveal multi-omic networks underlying Alzheimer's disease	Indiana Clinical and Translational Sciences	PI	$10,000	05/2017-04/2019
Disturbance of gene-metabolite network along the continuum of Alzheimer's disease progression	IUPUI	PI	$74,832	07/2018-10/2019
Effect of Prenatal Exposure to Opioids on Neonatal Brain Structure and Function	Radiological Society of North America	Co-I	$40,000	07/2018-06/2019
MoNE: a web platform for interactive exploration and analysis of the multi-omic network	IUPUI	PI	$10,000	02/2018-01/2020
Metabolic Network Analysis of Biochemical Trajectories in Alzheimer's Disease	NIH	Co-I	$40,000	09/2017-06/2020
Predicting Neurodevelopmental Outcomes in Neonatal Abstinence Syndrome	American Roentgen Ray Society	Co-I	$140,000	07/2019-06/2020
Integrative Bioinformatics Approaches to Human Brain Genomics and Connectomics	NIH	Co-I	$119,656	05/2018-04/2020

INVITED PRESENTATIONS

Title	Organization	Date
Integrative -omics for improved understanding and risk stratification of Alzheimer's disease	Indiana University Stark Neuroscience Institute	04/2024
Integrative -omics for improved understanding and risk stratification of Alzheimer's disease	University of Wisconsin-Madison	03/2024
Integrative -omics for identification of functional markers in Alzheimer's disease	Annual Clear-AD meeting	01/2024
Deep multi-omic network fusion reveals altered synaptic network in Alzheimer's disease	Indiana Clinical and Translational Sciences Institute	02/2023
Deep multi-omic network fusion for marker discovery of Alzheimer's Disease	University of New York at Buffalo	12/2022
Integrative -Omics for Discovery of Network-Level Disease Biomarkers: A Case Study in Alzheimer's Disease	Institute of Artificial Intelligence	04/2021
Machine Learning in Integrating –omics for Novel Biomarker Discovery of Complex Disease	Department of Mathematical Sciences, IUPUI	04/2019
Differential Co-Expression Analysis Reveals Early Stage Gene Dis-Coordination in	Data Science Summit, IUPUI	03/2019
Machine Learning in Integrating –omics for Novel Biomarker Discovery of Complex Disease	Department of Computer Science, IUPUI	03/2017
Bridging brain imaging and –omics data with structured sparse learning	The fourth Indiana Neuroimaging Symposium	11/2018
Differential co-expression analysis reveals early stage transcriptomic decoupling in Alzheimer's	International Conference on Intelligent Biology and Medicine	06/2019
Heritability estimation of reliable connectomic features	MICCAI: International Workshop on connectomics in neuroimaging	09/2018
Brain-wide structural connectivity alterations under the control of Alzheimer risk genes	International Conference on Intelligent Biology and Medicine	06/2018
Joint exploration and mining of memory-relevant brain anatomic and connectomic patterns via a three-way association model	International Symposium on Biomedical Imaging (ISBI)	04/2018
Heritability estimation of reliable connectomic features	International School and Conference on Network Science	06/2017

PUBLICATIONS (PEER-REVIEWED)

1. Pugalenthi, P.V., Gao T., Huang, Y., Arnold, M., Kaddurah-Daouk, R., Saykin, A.J., **Yan, J***, Nho, K.*, 2024. Blood metabolic ages are associated with the progression of central biomarkers of Alzheimer's disease, Nature Aging. Submitted. **(Co-corresponding author)**
2. Park, K., Gao, T., **Yan, J.,** Keles, S., 2024. MINTsC learns multi-way genomic interactions from single cell high throughput chromatin conformation data. Nature Communication. Under review.

3. He, B., Wu, R., Sangani, N., Pugalenthi, P.V., Patania, A., Risacher, S.L., Nho, K., Apostolova, L.G., Shen, L., Saykin, A.J., **Yan, J.,** 2024. Integrating amyloid imaging and genetics for early risk stratification of Alzheimer's disease. Alzheimer's & Dementia. **(Impact Factor = 14.5**).

4. Xie, L., Raj, Y., Varathan, P., He, B., Nho, K., Risacher, S.L., Salama, P., Saykin, A.J. and **Yan, J.,** 2024, Deep trans-omic network fusion reveals altered synaptic network in Alzheimer's Disease. Journal of Alzheimer's disease. 2024;99(2):715-727.

5. He, B., Zhang, S., Risacher, S.L., Saykin, A.J., **Yan, J.,** Multi-modal Imaging-based Pseudotime Analysis of Alzheimer progression. Pacific Symposium on Biocomputing 2024. (**Oral presentation**)

6. Pugalenthi, P.V., Xie, L, He, B., Saykin, AJ., Nho, K., **Yan, J,** Deciphering the tissue-specific functional effect of Alzheimer risk SNPs with deep genome annotation.", Biodata Mining. 2024. Accepted.

7. He, B, Sangani N, Wu R, Varathan P, Patania A, Risacher SL, Nho K, Apostolova LG, Saykin AJ, Shen L, and **Yan J**., Integrative analysis of amyloid imaging and genetics reveals subtypes of Alzheimer progression in early stage. Artificial Intelligence in Medicine. 2024.

8. Takemaru, L., Yang, S, Wu, R., He, B., Davatzikos, C., **Yan, J**, Shen, L, Mapping Alzheimer's Disease Pseudo-Progression with Multimodal Biomarker Trajectory Embeddings. IEEE International Symposium on Biomedical Imaging 2024.

9. Wang, Y., He, B., Risacher, SL.., Saykin, AJ.., **Yan, J,***, Wang, X,*, Learning the irreversible progression trajectory of Alzheimer's disease, IEEE International Symposium on Biomedical Imaging 2024. (**co-corresponding author**)

10. Wu, R., He, B., Hou, B., Saykin, AJ., **Yan, J**, Shen, L, Cluster Analysis of Cortical Amyloid Burden for Identifying Imaging-driven Subtypes in Mild Cognitive Impairment, AMIA 2024.

11. He, B., Xie, L., Varathan, P., Nho, K., Risacher, S.L., Saykin, A.J., **Yan, J**. and Alzheimer's Disease Neuroimaging Initiative, 2023. Fused multi-modal similarity network as prior in guiding brain imaging genetic association. Frontiers in big Data, 6, p.1151893.

12. Kim, M., Min, E.J., Liu, K**., Yan, J.**, Saykin, A.J., Moore, J.H., Long, Q. and Shen, L., 2022. Multi-task learning based structured sparse canonical correlation analysis for brain imaging genetics. *Medical image analysis*, *76*, p.102297. **(Impact factor = 13.8)**

13. He, B., Gorijala, P., Xie, L., Cao, S. and **Yan, J.**, 2022. Gene co-expression changes underlying the functional connectomic alterations in Alzheimer's disease. BMC Medical Genomics, 15(2), pp.1-9.

14. Varathan, P., Gorijala, P., Jacobson, T., Chasioti, D., Nho, K., Risacher, S.L., Saykin, A.J. and Yan, J., 2022. Integrative analysis of eQTL and GWAS summary statistics reveals transcriptomic alteration in Alzheimer brains. BMC Medical Genomics, 15(2), pp.1-10.

15. Cong, S., Yao, X., Xie, L., **Yan, J.** and Shen, L., 2022. Genetic Influence underlying Brain Connectivity Phenotype: A Study on Two Age-Specific Cohorts. *Frontier in Genetics*. 12:782953.

16. Li, J., Chen, F., Liang, H. and **Yan, J**., 2022. MoNET: an R package for multi-omic network analysis. Bioinformatics, 38(4), pp.1165-1167.

17. Zhang, L., Wang, L., Gao, J., Risacher, S.L., **Yan, J.,** Li, G., Liu, T., Zhu, D. and Alzheimer's Disease Neuroimaging Initiative, 2021. Deep fusion of brain structure-function in mild cognitive impairment. Medical image analysis, *72*, p.102082. **(Impact factor = 13.8)**

18. Xie, L., He, B., Varathan, P., Nho, K., Risacher, S.L., Saykin, A.J., Salama, P. and **Yan, J.**, 2021. Integrative-omics for discovery of network-level disease biomarkers: a case study in Alzheimer's disease. Briefings in bioinformatics, 22(6), p.bbab121. **(Impact factor = 13.9)**

19. Baloni, P., Funk, C.C., **Yan, J.**, Yurkovich, J.T., Kueider-Paisley, A., Nho, K., Heinken, A., Jia, W., Mahmoudiandehkordi, S., Louie, G. and Saykin, A.J., (2020). Metabolic Network Analysis Reveals Altered Bile Acid Synthesis and Metabolism in Alzheimer's Disease. Cell Reports Medicine, 1(8), p.100138. (**Impact factor = 11.7**)

20. Xie, L., Varathan, P., Nho, K., Saykin, A.J., Salama, P. and **Yan, J.**, (2020). Identification of functionally connected multi-omic biomarkers for Alzheimer's disease using modularity-constrained Lasso. *PloS one*, *15*(6), p.e0234748.

21. Upadhyaya, Y, Xie, L, Salama, P, Cao, S, Nho, K, Saykin, A. J and **Yan, J.** (2020). Differential co-expression analysis reveals early stage transcriptomic decoupling in Alzheimer's disease. BMC medical genomics, 13, 1-10.

22. Yao, X., **Yan, J.**, Shen, L., (2019) Applications of imaging genomics beyond oncology. Radiomics and Radiogenomics: Technical Basis and Clinical Applications. CRC Press. (Book Chapter)

23. Chasioti, D., **Yan, J.***, Nho, K.*, Saykin, A. J.* (2019). Progress in Polygenic Composite Scores in Alzheimer's and Other Complex Diseases. Trends in Genetics. (**co-corresponding author**)

24. Upadhyaya, Y., Xie, L., Salama, P., Nho, K., Saykin, A. J., **Yan, J..** Disruption of gene co-expression network along the progression of Alzheimer's disease. 2019 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI) (pp. 1-4).

25. Xie, L., Amico, E., Salama, P., Wu, Y.-C., Fang, S., Sporns, O., Saykin, A. J., Goni, Joaquin, **Yan, J.**, Shen, L. (2018). Heritability Estimation of Reliable Connectomic Features. MICCAI International Workshop on Connectomics in Neuroimaging (pp. 58--66).

26. **Yan, J.**, Raja V, V., Huang, Z., Amico, E., Nho, K., Fang, S., Sporns, O., Wu, Y.-C., Saykin, A. J., Joaquin, G., Shen, L. (2018). Brain-wide structural connectivity alterations under the control of Alzheimer risk genes. International Journal of Computational Biology and Drug Design.

27. **Yan, J.,** Risacher, S. L., Shen, L., Saykin, A. J. 2018. Network approaches to systems biology analysis of complex disease: Integrative methods for multi-omics data. Briefings in Bioinformatics. **(Impact factor = 13.9)**

28. Zigon, B., Li, H., Yao, X., Fang, S., Hasan, M. A., **Yan, J.**, Moore, J. H., Saykin, A. J., Shen, L. (2018). GPU Accelerated Browser for Neuroimaging Genomics. Neuroinformatics, 16(3-4), 393-402.

29. Wang, X., Chen, H., **Yan, J.**, Nho, K., Risacher, S. L., Saykin, A. J., Shen, L., Huang, H. (2018). Quantitative trait loci identification for brain endophenotypes via new additive model with random networks. Bioinformatics (Oxford, England), 34(17), i866-i874.

30. Wang, X., **Yan, J.**, Yao, X., Kim, S., Nho, K., Risacher, S. L., Saykin, A. J., Shen, L., Huang, H. (2018). Longitudinal Genotype-Phenotype Association Study through Temporal Structure Auto-Learning Predictive Model. Journal of computational biology: a journal of computational molecular cell biology, 25(7), 809-824.

31. Du, L., Liu, K., Zhang, T., Yao, X., **Yan, J.**, Risacher, S. L., Han, J., Guo, L., Saykin, A. J., Shen, L. (2017). A Novel SCCA Approach via Truncated l1-norm and Truncated Group Lasso for Brain Imaging Genetics. Bioinformatics.

32. Li, J., Zhang, Q., Chen, F., Meng, X., Liu, W., Chen, D., **Yan, J.**, Kim, S., Wang, L., Feng, W., Saykin, A. J., Liang, H., Shen, L. (2017). Genome-wide association and interaction studies of CSF T-tau/Abeta42 ratio in ADNI cohort. Neurobiol Aging, 57, 247.e1-247.e8.

33. Cong, W., Meng, X., Li, J., Zhang, Q., Chen, F., Liu, W., Wang, Y., Cheng, S., Yao, X., **Yan, J.**, Kim, S., Saykin, A. J., Liang, H., Shen, L. (2017). Genome-wide network-based pathway analysis of CSF t-tau/Abeta1-42 ratio in the ADNI cohort. BMC Genomics, 18(1), 421.

34. Hao, X., Li, C., **Yan, J.**, Yao, X., Risacher, S. L., Saykin, A. J., Shen, L., Zhang, D. (2017). Identification of associations between genotypes and longitudinal phenotypes via temporally-constrained group sparse canonical correlation analysis. Bioinformatics, 33(14), i341-i349.

35. Yao, X., **Yan, J.**, Ginda, M., Borner, K., Saykin, A. J., Shen, L. (2017). Mapping longitudinal scientific progress, collaboration and impact of the Alzheimer's disease neuroimaging initiative. PLoS One, 12(11), e0186095.

36. Hao, X., Li, C., Du, L., Yao, X., **Yan, J.**, Risacher, S. L., Saykin, A. J., Shen, L., Zhang, D. (2017). Mining Outcome-relevant Brain Imaging Genetic Associations via Three-way Sparse Canonical Correlation Analysis in Alzheimer's Disease. Sci Rep, 7, 44272.

37. Du, L., Liu, K., Yao, X., **Yan, J.**, Risacher, S. L., Han, J., Guo, L., Saykin, A. J., Shen, L. (2017). Pattern Discovery in Brain Imaging Genetics via SCCA Modeling with a Generic Non-convex Penalty. Sci Rep, 7(1), 14052.

38. Yao, X., **Yan, J.**, Liu, K., Kim, S., Nho, K., Risacher, S. L., Greene, C. S., Moore, J. H., Saykin, A. J., Shen, L. (2017). Tissue-specific network-based genome wide study of amygdala imaging phenotypes to identify functional interaction modules. Bioinformatics, 33(20), 3250-3257.

39. Yao, X., **Yan, J.**, Kim, S., Nho, K., Risacher, S. L., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L. (2017). Two-dimensional enrichment analysis for mining high-level imaging genetic associations. Brain Inform, 4(1), 27-37.

40. Wang, X., Liu, K., **Yan, J.** , Risacher, S. L., Saykin, A. J., Shen, L., Huang, H. (2017). Predicting Interrelated Alzheimer's Disease Outcomes via New Self-Learned Structured Low-Rank Model. Inf Process Med Imaging, 10265, 198-209.

41. **Yan, J**., Liu, K., Risacher, S. L., Nho, K., Saykin, A. J., Shen, L. (2017). Graph embedded sparse association model for joint identification of discriminative imaging proteomic markers and their associations. International Symposium on Biomedical Imaging. **(Oral Presentation**)

42. **Yan, J**., Risacher, S. L., Nho, K., Saykin, A. J., Shen, L. (2017). Identification of discriminative imaging proteomics associations in Alzheimer's disease via a novel sparse correlation model. Pacific Symposium on Biocomputing (vol. 22, pp. 94-104).

43. Du, L., Zhang, T., Liu, K., **Yan, J.,** Yao, X., Risacher, S. L., Saykin, A. J., Han, J., Guo, L., Shen, L. (2017). Identifying Associations Between Brain Imaging Phenotypes and Genetic Factors via A Novel Structured SCCA Approach. Inf Process Med Imaging, 10265, 543-555.

44. Hao, X., **Yan, J.**, Yao, X., Risacher, S. L., Saykin, A. J., Zhang, D., Shen, L. (2016). Diagnosis-Guided Method For Identifying Multi-Modality Neuroimaging Biomarkers Associated With Genetic Risk Factors In Alzheimer's Disease. Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing (vol. 21, pp. 108).

45. Du, L., Zhang, T., Liu, K., Yao, X., **Yan, J.**, Risacher, S. L., Guo, L., Saykin, A. J., Shen, L. (2016). Sparse Canonical Correlation Analysis via truncated ℓ 1-norm with application to brain imaging genetics. Bioinformatics and Biomedicine (BIBM), 2016 IEEE International Conference on (pp. 707–711).

46. Hao, X., Yao, X., **Yan, J.**, Risacher, S. L., Saykin, A. J., Zhang, D., Shen, L., Initiative, A. D. N., others (2016). Identifying Multimodal Intermediate Phenotypes Between Genetic Risk Factors and Disease Status in Alzheimer's Disease. Neuroinformatics, 14(4), 439–452.

47. Song, A., **Yan, J.** , Kim, S., Risacher, S. L., Wong, A. K., Saykin, A. J., Shen, L., Greene, C. S. (2016). Network-based analysis of genetic variants associated with hippocampal volume in Alzheimer's disease: a study of ADNI cohorts. BioData mining, 9(1), 3.

48. Du, L., Huang, H., **Yan, J.** , Kim, S., Risacher, S. L., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L., Initiative, A. D. N., others (2016). Structured sparse canonical correlation analysis for brain imaging genetics: an improved GraphNet method. Bioinformatics, btw033.

49. **Yan, J.**, Du, L., Yao, X., Shen, L. (2016). Machine learning in brain imaging genomics. Machine Learning and Medical Imaging. Elsevier.

50. **Yan, J.**, Li, T., Wang, H., Huang, H., Wan, J., Nho, K., Kim, S., Risacher, S. L., Saykin, A. J., Shen, L., others (2015). Cortical surface biomarkers for predicting cognitive outcomes using group l 2, 1 norm. Neurobiology of aging, 36, S185–S193.

51. **Yan, J.**, Kim, S., Nho, K., Chen, R., Risacher, S. L., Moore, J. H., Saykin, A. J., Shen, L., Initiative, A. D. N., others (2015). Hippocampal transcriptome-guided genetic analysis of correlated episodic memory phenotypes in Alzheimer's disease. Frontiers in genetics.

52. Du, L., **Yan, J.**, Kim, S., Risacher, S. L., Huang, H., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L., others (2015). Gn-scca: Graphnet based sparse canonical correlation analysis for brain imaging genetics. International Conference on Brain Informatics and Health (pp. 275–284).

53. Gao, H., Cai, C., **Yan, J.,** Yan, L., Cortes, J. G., Wang, Y., Nie, F., West, J., Saykin, A. J., Shen, L., others (2015). Identifying Connectome Module Patterns via New Balanced Multi-graph Normalized Cut. International Conference on Medical Image Computing and Computer-Assisted Intervention (pp. 169–176).

54. Yao, X., **Yan, J.,** Kim, S., Nho, K., Risacher, S. L., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L., others (2015). Two-dimensional enrichment analysis for mining high-level imaging genetic associations. International Conference on Brain Informatics and Health (pp. 115–124).

55. Du, L., **Yan, J.**, Kim, S., Risacher, S. L., Huang, H., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L. (2014). A novel structure-aware sparse learning algorithm for brain imaging genetics. International Conference on Medical Image Computing and Computer-Assisted Intervention (pp. 329–336).

56. **Yan, J.,** Zhang, H., Du, L., Wernert, E. A., Saykin, A. J., Shen, L. (2014). Accelerating sparse canonical correlation analysis for large brain imaging genetics data. Proceedings of the 2014 Annual Conference on Extreme Science and Engineering Discovery Environment (pp. 4). **(Oral Presentation**)

57. Sheng, J., Kim, S., **Yan, J.,** Moore, J., Saykin, A. J., Shen, L. (2014). Data synthesis and method evaluation for brain imaging genetics. Biomedical Imaging (ISBI), 2014 IEEE 11th International Symposium on (pp. 1202–1205).

58. **Yan, J.**, Huang, H., Kim, S., Moore, J., Saykin, A. J., Shen, L. (2014). Joint identification of imaging and proteomics biomarkers of Alzheimer's disease using network-guided sparse learning. Biomedical Imaging (ISBI), 2014 IEEE 11th International Symposium on (pp. 665–668). **(Oral Presentation**)

59. Wan, J., Zhang, Z., Rao, B. D., Fang, S., **Yan, J.**, Saykin, A. J., Shen, L. (2014). Identifying the neuroanatomical basis of cognitive impairment in Alzheimer's disease by correlation-and nonlinearity-aware sparse Bayesian learning. IEEE transactions on medical imaging, 33(7), 1475–1487.

60. **Yan, J.**, Du, L., Kim, S., Risacher, S. L., Huang, H., Moore, J. H., Saykin, A. J., Shen, L., Initiative, A. D. N., others (2014). Transcriptome-guided amyloid imaging genetic analysis via a novel structured sparse learning algorithm. Bioinformatics, 30(17), i564–i571.

61. Li, T., Xie, Z., Wu, J., **Yan, J.**, Shen, L. (2013). Interactive object extraction by merging regions with k-global maximal similarity. Neurocomputing, 120, 610–623.

62. Huang, H., **Yan, J.**, Nie, F., Huang, J., Cai, W., Saykin, A. J., Shen, L. (2013). A new sparse simplex model for brain anatomical and genetic network analysis. International Conference on Medical Image Computing and Computer-Assisted Intervention (pp. 625–632).

63. **Yan, J**., Huang, H., Risacher, S. L., Kim, S., Inlow, M., Moore, J. H., Saykin, A. J., Shen, L. (2013). Network-guided sparse learning for predicting cognitive outcomes from MRI measures. International Workshop on Multimodal Brain Image Analysis (pp. 202–210).

64. Wang, D., Nie, F., Huang, H., **Yan, J.,** Risacher, S. L., Saykin, A. J., Shen, L. (2013). Structural brain network constrained neuroimaging marker identification for predicting cognitive functions. Information processing in medical imaging. (vol. 23, pp. 536).

65. **Yan, J.,** Risacher, S. L., Kim, S., Simon, J. C., Li, T., Wan, J., Wang, H., Huang, H., Saykin, A. J., Shen, L. (2012). Multimodal neuroimaging predictors for cognitive performance using structured sparse learning. International Workshop on Multimodal Brain Image Analysis (pp. 1–17).

66. Wang, H., Nie, F., Huang, H., **Yan, J.**, Kim, S., Nho, K., Risacher, S. L., Saykin, A. J., Shen, L., Initiative, A. D. N., others (2012). From phenotype to genotype: an association study of longitudinal phenotypic markers to Alzheimer's disease relevant SNPs. Bioinformatics, 28(18), i619–i625.