Dale Zhou

Contact Information

Complex Systems Lab
Hayden Hall 311,
244 S 33rd St
Philadelphia, PA 19104

https://dalezhou.com
dalezhou@pennmedicine.upenn.edu
dalejn@gmail.com

Education

University of Pennsylvania
Ph.D. candidate in Neuroscience
Thesis advisors: Danielle Bassett and Theodore Satterthwaite

University of Maryland, College Park
B.A. in Philosophy, *honors*
B.Sc. in Psychology, *honors*
Minor in Neuroscience

Publications

Journal Articles

Chai, L.R., **Zhou, D.**, Bassett, D.S. (2019) *Evolution of semantic networks in biomedical texts.* Journal of Complex Networks. DOI: 10.1093/comnet/cnz023

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, and Thomas, A.G. (2018) *7 Tesla MRI reveals hippocampal structural abnormalities associated with memory intrusions in childhood-onset schizophrenia.* Schizophrenia Research. DOI: 10.1016/j.schres.2018.07.023

Zhou, D., Gochman, P., Broadnax, D.D., Rapoport, J.L., and Ahn, K. (2016). *15q13.3 duplication in two patients with childhood-onset schizophrenia.* American Journal of Medical Genetics Part B: Neuropsychiatric Genetics. DOI: 10.1002/ajmg.b.32439

Submitted/ Under Review

Srivastava, P., Nozari, E., Kim, J.Z., Ju, H., **Zhou, D.**, Becker, C., Pasqualetti, F., and Bassett, D.S. (2020). *Models of communication and control for brain networks: distinctions, convergence, and future outlook.* arXiv. arXiv:2002.07029

Zhou, D., Lynn, C.W., Cui, Z., Ciric, R., Baum, G.L., Moore, T.M., Roalf, D.R., Detre, J.A., Gur, R.C., Gur, R.E., Satterthwaite, T.D., Bassett, D.S. (2020). *Efficient Coding in the Economics of Human Brain Connectomics.* biorxiv. DOI: 10.1101/2020.01.14.906842

Lydon-Staley, D.M., **Zhou, D.**, Blevins, A.S., Zurn, P., Bassett, D.S. (2019). *Hunters, busybodies, and the knowledge network building associated with curiosity.* PsyArXiv. DOI: 10.31234/osf.io/undy4

Reviews/Book Chapters

Holland, A. J., Rapoport, J. L., **Zhou, D.**, Ahn, K. (2020). *Intellectual disabilities.* New Oxford Textbook of Psychiatry, 3rd edition. Oxford University Press, USA. ISBN: 9780198713005

Zhou, D., Sequeira, S., Driver, D., Thomas, S. (2018). *Disruptive Mood Dysregulation Disorder.* In S. Thomas and D. Driver (Eds.), Complex Disorders in Pediatric Psychiatry: A Clinician's Guide. Clinics Review Articles, Elsevier Inc. ISBN: 9780323511476

Conference Presentations

Talks

Sackler Colloquium: The Brain Produces the Mind By Modeling (2019). Flash Talk: *Network Mechanisms of Curiosity and Information Seeking During Wikipedia*

Exploration. National Academy of Sciences satellite event. Irvine, California.

Julius Axelrod Symposium (2017). Flash Talk: *Ultra-high field 7-Tesla MRI reveals hippocampal subfield volume and shape abnormalities in childhood-onset schizophrenia patients compared to healthy siblings and controls.* Society for Neuroscience satellite event. NIMH, Intramural Research Program. Bethesda, Maryland.

Abstracts

Zhou, D., Lynn, C.W., Cui, Z., Ciric, R., Baum, G.L., Moore, T.M., Roalf, D.R., Detre, J.A., Gur, R.C., Gur, R.E., Satterthwaite, T.D., Bassett, D.S. (2020). *Efficient Coding in the Economics of Human Brain Connectomics.* Organization of Human Brain Mapping. Vancouver, CA.

Zhou, D., Lydon-Staley, D., Zurn, P., Bassett, D.S. (2019). *Network Mechanisms of Curiosity and Information Seeking During Wikipedia Exploration.* Sackler Colloquium: The Brain Produces the Mind By Modeling, Beckman Center of the National Academy of Sciences & Engineering, Irvine, California.

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, and Thomas, A.G. (2017). *Ultra-high field 7-Tesla MRI reveals hippocampal subfield volume and shape abnormalities in childhood-onset schizophrenia patients compared to healthy siblings and controls.* Julius Axelrod Symposium, Bethesda, Maryland.

Zhou, D., Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, and Thomas, A.G. (2017). *Ultra-High Field 7-Tesla MRI Shape Analysis of Hippocampal Subfields in Childhood-Onset Schizophrenia and Healthy Siblings.* Society for Biological Psychiatry, San Diego, California.

Zhou, D., Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L, and Thomas, A.G. (2016). *7-Tesla MRI Reveals Regional Hippocampal Deficits in Childhood-Onset Schizophrenia.* American College of Neuropsychopharmacology, Hollywood, Florida. In *Neuropsychopharmacology*, Vol. 41, pp. S591-S591.

Zhou, D., Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L, and Thomas, A.G. *(2016). 7-Tesla MRI reveals regional hippocampal volume deficits of dentate gyrus in childhood-onset schizophrenia.* Society for Neuroscience, San Diego, California.

Zhou, D., Gochman, P., Broadnax, D.D., Rapoport, J.L., and Ahn, K. (2016). *15q13.3 duplication in two patients with childhood-onset schizophrenia.* Society of Biological Psychiatry, Atlanta, Georgia.

Open-source Software & Notebooks

Zhou, D., Cornblath, E.J., Stiso, J., Teich, E.G., Dworkin, J.D., Blevins, A.S., & Bassett, D.S. (2020). Gender Diversity Statement and Code Notebook v1.0 (Version v1.0). Zenodo. DOI: 10.5281/zenodo.3672110

Gorgolewski, K.J., Esteban, O., [110 others, including **Zhou, D.**], and Ghosh, S. (2016). *Nipype: a flexible, lightweight and extensible neuroimaging data processing framework in Python. 0.13.0.* DOI: 10.5281/zenodo.581704

2018 Building word2vec and Co-Occurrence Networks, `link`

Honors & Awards

2019 Sackler Colloquium 'Brain Produces Mind By Modeling' Travel Award

2018	Language and Communication Sciences Research Fund Stipend
2015	NIH Intramural Research Training Award
2015	Departmental Honors in Psychology
2015	Departmental Honors in Philosophy
2013	College Park Scholars Co-Curricular Scholarship Award
2012	College Park Scholar in Global Public Health
2011	Ling Ho Anita K'ung Tong Scholarship
2010	University of Maryland President's Scholarship

Teaching

2020	Teaching Assistant, Curiosity (INTG 002)
2019	Guest Lecturer, Network Neuroscience (BE 566)
2019	Guest Lecturer, Computational Neuroscience Lab (BBB 344)
2019	Teaching Assistant, Computational Neuroscience Lab (BBB 344)

Students Advised

Samantha Simon (University of Pennsylvania, Physics 2023)
Diversity in science; network science; semantic networks

Mark Choi (University of Pennsylvania, Computer Science 2021)
Network structure in mathematics networks

Professional Service

2019–	Organizer, Penn Network Visualization program, [link]
2019	Committee, APICAL Service Award
2019–	Apprentice Chief, Upward Bound: Research Fridays, [link]
2017–	Section Chief, Brains in Brief science communication, [link]
2017–18	Founder, Psychology Honors Alumni (University of Maryland)
2014–15	Vice President, Philosophy Club (University of Maryland)

Reviewer Biological Psychiatry, Cerebral Cortex, IEEE: Transactions on Network Science and Engineering

Invited Talks Panelist, Post-Baccalaureate Research Experiences (2017), University of Maryland

Technical Skills & Training

Programming R, Python, MATLAB, LaTeX

Image Processing Nipype, Freesurfer, ANTs, FSL, AFNI

Workshops Computational Psychiatry Summer Course (2019), New York, New York.