Dale Zhou

CONTACT INFORMATION

Complex Systems Lab
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Philadelphia, PA 19104

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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

SUBMITTED

[12] Ju, H., **Zhou, D.**, Blevins, A.S., Lydon-Staley, D.M., Kaplan, J., Tuma, J.R., Bassett, D.S. (2020). *The network structure of scientific revolutions.* SocArXiv: https://osf.io/preprints/socarxiv/tga9c/

[11] Bertolero, M.A., Dworkin, J.D., David, S.U., López Lloreda, C., Srivastava, P., Stiso, J., **Zhou, D.**, Dzirasa, K., Fair, D.A., Kaczkurkin, A.N., Marlin, B.J., Shohamy, D., Uddin, L.Q., Zurn, P., & Bassett, D.S. (2020). *Racial imbalance in neuroscience reference lists and intersections with gender.* bioRxiv 2020.10.12.336230

[10] Wang, X., Dworkin, J.D., **Zhou, D.**, Stiso, J., Falk, E.G., Bassett, D.S., Zurn, P., & Lydon-Staley, D.M. (2020). *Gendered Citation Practices in Communication Research.* https://psyarxiv.com/ywrcq/.

[9] **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, under revision at Nature Neuroscience). *Efficient Coding in the Economics of Human Brain Connectomics.* biorxiv. DOI: 10.1101/2020.01.14.906842

JOURNAL ARTICLES

[8] Lydon-Staley, D.M., **Zhou, D.**, Blevins, A.S., Zurn, P., & Bassett, D.S. (2020). *Hunters, busybodies, and the knowledge network building associated with curiosity.* Nature Human Behavior. DOI: 10.31234/osf.io /undy4

[7] 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

[6] **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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

[5] **Zhou, D.**, Gochman, P., Broadnax, D.D., Rapoport, J.L., & 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

Reviews/Book Chapters

[4] **Zhou, D.**, Lydon-Staley, D.M., Zurn, P., & Bassett, D.S. (2020). *The growth and form of knowledge networks by kinesthetic curiosity.* Current Opinion in Behavioral Sciences. arXiv:2006.02949

[3] Srivastava, P., Nozari, E., Kim, J.Z., Ju, H., **Zhou, D.**, Becker, C., Pasqualetti, F., & Bassett, D.S. (2020). *Models of communication and control for brain networks: distinctions, convergence, and future outlook.* Network Neuroscience. DOI: 10.1162/netn_a_00158

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

[1] **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

[2] National Academy of Sciences Colloquium: The Brain Produces the Mind By Modeling (2019). *Network Mechanisms of Curiosity and Information Seeking During Wikipedia Exploration.* Irvine, California.

[1] Annual Julius Axelrod Symposium (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.* NIMH, Intramural Research Program. Bethesda, Maryland.

Abstracts

[7] **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. Montreal, CA.

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

[5] **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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.

[4] **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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.

[3] **Zhou, D.**, Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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.

[2] **Zhou, D.**, Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L, & 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.

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

Open-source Software & Notebooks

[3] **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

[2] **Zhou, D.** (2018). *Building word2vec and Co-Occurrence Networks*, `link`

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

Honors

2018-	Language and Communication Sciences Program
2015	Departmental Honors in Psychology
2015	Departmental Honors in Philosophy
2010-12	College Park Scholar in Global Public Health

Funding

2015-17	NIH Intramural Research Training Award
2010-14	University of Maryland President's Scholarship

Other Funding

2020	Graduate Student Technology Grant
2018-20	Language and Communication Sciences Research Fund Stipend
2019	National Academy of Sciences Travel Award
2013	College Park Scholars Co-Curricular Scholarship Award
2011	Ling Ho Anita K'ung Tong Scholarship

Teaching

2020	Guest Lecturer, Network Neuroscience (BE566) (with Danielle Bassett)
2020	Teaching Assistant, Curiosity: Ancient and Modern Thinking about Thinking (INTG002) (with Danielle Bassett)
2019	Guest Lecturer, Network Neuroscience (BE566) (with Danielle Bassett)
2019	Guest Lecturer, Computational Neuroscience Lab (BBB344) (with Nicole Rust)
2019	Teaching Assistant, Computational Neuroscience Lab (BBB344) (with Nicole Rust)

Students Advised

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

[1] Mark Choi (University of Pennsylvania, Computer Science 2021)
Network structure in mathematics

(a) Top Poster Presentation for Rachleff Scholars Program at Penn Engineering Summer REU Symposium

Mentorship

2020– Mentor, MindCORE Step-Ahead Mentorship Program, [link]
2019– Mentor, Upward Bound: Research Fridays, [link]

Professional Service

2020– Organizing Committee, Innovators in Cognitive Neuroscience Symposia, [link]
2020– Web Developer, Black in STEM in Academia, [link]
2019– Organizer, Web Developer, Penn Network Visualization program, [link]
2019–20 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

Hackathons

Stiso, J.* & **Zhou, D.*** (2020). *Tools for Combating Citation Bias.* Organization of Human Brain Mapping Hackathon, Montreal, Canada. [link]

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

Summer Workshop in Cognitive Electrophysiology (2020), Philadelphia, PA.
Organization of Human Brain Mapping Hackathon (2020), Montreal, Canada.
Computational Psychiatry Summer Course (2019), New York, New York.