

Dale Zhou

CONTACT INFORMATION

Complex Systems Lab
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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

- [9] **Zhou, D.**, Lydon-Staley, D.M., Zurn, P., Bassett, D.S. (2020, under review at Current Opinion in Behavioral Sciences). *The growth and form of knowledge networks by kinesthetic curiosity*. arXiv. [arXiv:2006.02949](https://arxiv.org/abs/2006.02949)
- [8] **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](https://doi.org/10.1101/2020.01.14.906842)
- [7] Lydon-Staley, D.M., **Zhou, D.**, Blevins, A.S., Zurn, P., Bassett, D.S. (2019, under revision at Nature Human Behavior). *Hunters, busybodies, and the knowledge network building associated with curiosity*. PsyArXiv. DOI: [10.31234/osf.io/undy4](https://doi.org/10.31234/osf.io/undy4)

JOURNAL ARTICLES

- [6] 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](https://doi.org/10.1093/comnet/cnz023)
- [5] **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](https://doi.org/10.1016/j.schres.2018.07.023)
- [4] **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](https://doi.org/10.1002/ajmg.b.32439)

REVIEWS/BOOK CHAPTERS

- [3] Srivastava, P., Nozari, E., Kim, J.Z., Ju, H., **Zhou, D.**, Becker, C., Pasqualetti, F., and Bassett, D.S. (2020, in press). *Models of communication and control for brain networks: distinctions, convergence, and future outlook*. Network Neuroscience. [arXiv:2002.07029](https://arxiv.org/abs/2002.07029)
- [2] 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

- [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*. Sackler 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, 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.
- [4] **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.
- [3] **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.
- [2] **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.
- [1] **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

- [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](https://doi.org/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.**], and Ghosh, S. (2016). *Nipype: a flexible, lightweight and extensible neuroimaging data processing framework in Python. 0.13.0*. DOI: [10.5281/zenodo.581704](https://doi.org/10.5281/zenodo.581704)

Honors

2018-20	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

Small Grants

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	Curiosity: Ancient and Modern Thinking about Thinking (INTG002)
2019	Guest Lecturer, Network Neuroscience (BE566)
2019	Guest Lecturer, Computational Neuroscience Lab (BBB344)
2019	Teaching Assistant, Computational Neuroscience Lab (BBB344)

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

MENTORSHIP

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

Professional Service

2020–	Web Developer, Black in STEM
2019–	Organizer, Web Designer, 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

HACKATHONS	Stiso, J.* & Zhou, D.* (2020). <i>Tools for Combating Citation Bias</i> . Organization of Human Brain Mapping Hackathon, Montreal, Canada.
INVITED TALKS	Panelist, Post-Baccalaureate Research Experiences (2017), University of Maryland
Technical Skills & Training	
PROGRAMMING	R, Python, MATLAB, L ^A T _E X
IMAGE PROCESSING	Nipype, Freesurfer, ANTs, FSL, AFNI
WORKSHOPS	Organization of Human Brain Mapping Hackathon (2020), Montreal, Canada. Computational Psychiatry Summer Course (2019), New York, New York.