

DALE ZHOU

Last update: October 8, 2024

| | | |
|------------------------------|--|--|
| CONTACT INFORMATION | <p>Translational Neuroscience Laboratory 1400 Biological Sciences III Irvine, CA 92617</p> <p>Computational Cognitive Neuroscience Lab Social Science Lab 334 Irvine, CA 92697</p> | <p>https://dalezhou.com dale.zhou@uci.edu dalejn@gmail.com</p> |
| RESEARCH POSITIONS | <p>Hewitt Postdoctoral Research Fellow & Cunningham Scholar University of California, Irvine Department of Neurobiology and Behavior Advisors: Michael Yassa, Aaron Bornstein</p> <p>Postbaccalaureate Researcher National Institute of Mental Health Child Psychiatry Branch Advisor: Judith Rapoport</p> | <p>2017</p> |
| EDUCATION | <p>University of Pennsylvania Ph.D in Neuroscience Advisors: Dani Bassett, Theodore Satterthwaite</p> <p>University of Maryland, College Park B.A. (honors) in Philosophy B.S. (honors) in Psychology Minor in Neuroscience Advisors: Peter Carruthers, Michael Dougherty, D.J. Bolger</p> | <p>2023</p> <p>2015</p> |
| PUBLICATIONS | <p>Google Scholar: citations = 956; h-index = 13; i10-index = 14 * = mentee</p> | |
| SUBMITTED/ UNDER REVISION | <p>[1] Adams, J.N., Kark, S.M., Chappel-Farley, M.G., Escalante, Y., Zhou, D., Stith, L.A., Rapp, P.E., Yassa, M.A., & the Alzheimer’s Disease Neuroimaging Initiative (2024). Pathological brain state dynamics in Alzheimer’s disease. <i>biorxiv</i>: 10.1101/2023.08.30.555617v1</p> | |
| JOURNAL ARTICLES | <p>[16] Zhou, D., Patankar, S.P., Gerlach, M., Lydon-Staley, D.M., Zurn, P., & Bassett, D.S. (2024, accepted). Architectural styles of curiosity in global Wikipedia mobile app readership. Science Advances. <i>PsyArXiv</i>: 10.31234/osf.io/szuyj</p> <p>[15] Parkes, L., Kim, J.Z., Stiso, J., Brynildsen, J.K., Cieslak, M., Covitz, S., Gur, R.E., Gur, R.C., Pasqualetti, F. Shinohara, R.T., Stiso, J., Zhou, D., Satterthwaite, T.D., & Bassett, D.S. (2023). Using network control theory to study the dynamics of the structural connectome. Nature Protocols. DOI: 10.1038/s41596-024-01023-w</p> <p>[14] Kang, Y., Ahn, J., Cosme, D., McGowan, A., Mwilambwe-tshilobo, L., Zhou, D., Jovanova, M., Stanoi, O., Mucha, P.J., Ochsner, K.N., Bassett, D.S., Lydon-Staley, D. & Falk, E.B. (2023). Frontoparietal functional connectivity moderates the link between time spent on social media and subsequent negative affect in daily life. Scientific Reports. DOI: 10.1038/s41598-023-46040-z</p> | |

- [13] Mahadevan, A., Cornblath, E., Lydon-Staley, D.M., **Zhou, D.**, Parkes, L., Larsen, B., Adebimpe, A., Kahn, A.E., Gur, R.C., Gur, R.E., Satterthwaite, T.D., Wolf, D.H., & Bassett, D.S. (2023). Alprazolam modulates persistence energy during emotion processing in first-degree relatives of individuals with schizophrenia: a network control study. *Molecular Psychiatry*. DOI: 10.1038/s41380-023-02121-z
- [12] **Zhou, D.**, Kang, Y., Cosme, D., Jovanova, M., He, X., Mahadevan, A., Ahn, J., Stanoi, O., Brynildsen, J.K., Cooper, N., Cornblath, E.J., Parkes, L., Mucha, P., Ochsner, K., Lydon-Staley, D., Falk, E., & Bassett, D.S. (2023). Mindful Attention Promotes Control of Brain Network Dynamics for Self-Regulation and Discontinues the Past from the Present. *PNAS*. DOI: 10.1073/pnas.220107411
- [11] Patankar, S.P., **Zhou, D.**, Lynn, C.W., Kim, J., Ouellet, M., Ju, H., Zurn, P., Lydon-Staley, D.M., & Bassett, D.S. (2022). Curiosity as filling, compressing, and reconfiguring knowledge networks. *Collective Intelligence*. *arXiv*: 10.48550/arXiv.2204.01182
- [10] Richie-Halford, A., Cieslak, M., Ai, L., Caffarra, S., Covitz, S., Franco, A.R., Karipidis, I.I., Kruper, J., Milham, M., Avelar-Pereira, B., Roy, E., Sydnor, V.J., Yeatman, J.D., [The Fibr Community Science Consortium, including **Zhou, D.**], Satterthwaite, T.D., and Rokem, A. (2022). An open, analysis-ready, and quality controlled resource for pediatric brain white-matter research. *Scientific Data*. DOI: 10.1038/s41597-022-01695-7
- [9] Ju, H., **Zhou, D.**, Blevins, A.S., Lydon-Staley, D.M., Kaplan, J., Tuma, J.R., Bassett, D.S. (2022). Historical growth of concept networks in Wikipedia. *Collective Intelligence*. DOI: 10.1177/26339137221109839
- [8] Weninger, L., Srivastava, P., **Zhou, D.**, Kim, J.Z., Cornblath, E.J., Bertolero, M.A., Habel, U., Merhof, D., and Bassett, D.S. (2022). The information content of brain states is explained by structural constraints on state energetics. *Physical Review E*. DOI: 10.1103/PhysRevE.106.014401
- [7] Adebimpe, A., Bertolero, M.A., [33 others, including **Zhou, D.**, and the ALLFTD Consortium], & Satterthwaite, T.D. (2022). ASLPrep: A Platform for Processing of Arterial Spin Labeled MRI and Quantification of Regional Brain Perfusion. *Nature Methods*. DOI: 10.1038/s41592-022-01458-7
- [6] **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. (2021). Efficient Coding in the Economics of Human Brain Connectomics. *Network Neuroscience*. DOI: 10.1162/netn.a_00223
- [5] Wang, X., Dworkin, J.D., **Zhou, D.**, Stiso, J., Falk, E.B., Bassett, D.S., Zurn, P., Lydon-Staley, D.M. (2021). Gendered citation practices in the field of communication. *Annals of the International Communication Association*. DOI: 10.31234/osf.io/ywrcq
- [4] Lydon-Staley, D.M., **Zhou, D.**, Blevins, A.S., Zurn, P., & Bassett, D.S. (2020). Hunters, busybodies, and the knowledge network building associated with deprivation curiosity. *Nature Human Behavior*. DOI: 10.1038/s41562-020-00985-7
- [3] Chai, L.R., **Zhou, D.**, & Bassett, D.S. (2019). Evolution of semantic networks in biomedical texts. *Journal of Complex Networks*. DOI: 10.1093/com-net/cnz023
- [2] **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

REVIEWS,
COMMENTARY, &
BOOK CHAPTERS

- [1] **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
- [6] **Zhou, D.** & Bornstein, A.M. (2023). Expanding horizons in reinforcement learning for curious exploration and creative planning. *Behavioral and Brain Sciences*. *PsyArXiv*: 10.31234/osf.io/bhcwp
- [5] Zurn, P., **Zhou, D.**, Lydon-Staley, D.M., & Bassett, D.S. (2022). Edgework: Viewing curiosity as fundamentally relational. In Cogliati Dezza, I., Wu, C., & Schulz, E. (Eds.). *The Drive for Knowledge: The Science of Human Information Seeking*. Cambridge University Press. *PsyArXiv*: 10.31234/osf.io/crzae
- [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*. DOI:10.1016/j.cobeha.2020.09.007
- [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

REFEREED
CONFERENCE
PAPERS

- [7] **Zhou, D.**, Patankar, S., Gerlach, M., Lydon-Staley, D.M., Zurn, P., & Bassett, D.S. Architectural styles of curiosity in global Wikipedia mobile app readership (virtual). *11th Annual Wiki Workshop - Research Track*. June 20, 2024.
- [6] **Zhou, D.**, Noh, S., Yassa, M.A., Bornstein, A.M. Pattern separation using compressed and semantic representations of memory. *Conference on Cognitive Computational Neuroscience*. Massachusetts Institute of Technology, Boston, Massachusetts August 6-9, 2024.
- [5] Yoo, J.*, **Zhou, D.**, Bornstein, A.M. Latent cause inference as an efficient and flexible learning rule for cognitive graphs. *Conference on Cognitive Computational Neuroscience*. Massachusetts Institute of Technology, Boston, Massachusetts August 6-9, 2024.
- [4] **Zhou, D.**, Tseytlin, I.*, Satterthwaite, T.D., & Bassett, D.S. (2023). Predictive coding from compression, control, and recurrent connectivity in human brain networks. *Conference on Cognitive Computational Neuroscience*. Oxford University, Oxford, England. August 24-27, 2023.
- [3] Kang, Y., Ahn, J., Cosme, D., McGowan, A., Mwilambwe-tshilobo, L., **Zhou, D.**, Jovanova, M., Stanoi, O., Mucha, P.J., Ochsner, K.N., Bassett, D.S., Lydon-Staley, D. & Falk, E.B. Frontoparietal system functional connectivity moderates

the within-day associations between increases in time spent on social media and subsequent negative affect. *73rd Annual International Communication Association Conference*. Toronto, CA. May 25-29, 2023.

Promising Paper Award

- [2] **Zhou, D.**, Kim, J.Z., Pines, A., Sydnor, V.J., Roalf, D.R., Detre, J.A., Gur, R.C., Gur, R.E., Satterthwaite, T.D., & Bassett, D.S. Compression supports low-dimensional representations of behavior across neural circuits. *NeurIPS 2022 Workshop on Information-Theoretic Principles in Cognitive Systems*. New Orleans, LA. December 3, 2022.

Selected for oral talk (< 10% submissions)

- [1] Wang, X., Lydon-Staley, D.M., Stiso, J.A., **Zhou, D.**, Falk, E.B, Bassett, D.S, Zurn, P. Gendered citation practices in the field of communication. *71st Annual International Communication Association Conference*. (virtual due to COVID-19). May 27-31, 2021.

Communication & Science Biology Top Paper Award

IN PREP

- [5] **Zhou, D.**, Noh, S., Yassa, M.A, & Bornstein, A.B. A lossy compression account of pattern separation.
- [4] **Zhou, D.**, Ahn, J., Lydon-Staley, D.M., Falk, E.B., Bassett, D.S., & Ruscio, A. Network control dynamics of persistent thought patterns in depression and anxiety.
- [3] **Zhou, D.**, Tseytlin, I.*, Satterthwaite, T.D., & Bassett, D.S. Predictive coding from compression, control, and recurrent connectivity in human brain networks.
- [2] **Zhou, D.**, Kim, J.Z., Pines, A., Sydnor, V.J., Roalf, D.R., Gur, R.C., Gur, R.E., Satterthwaite, T.D., & Bassett, D.S. Integrating sensation to cognition in human brain networks.
- [1] **Zhou, D.**, Lydon-Staley, D.M., Mucha, P., Falk, E., Ochsner, K., & Bassett, D.S. Cognitive control & network control: Current tensions and future promise.

FUNDING & AWARDS

FUNDING

| | |
|---------|---|
| 2023-26 | Hewitt Research Fellow & Cunningham Scholar \$261,000 George E. Hewitt Foundation for Medical Research |
| 2021-23 | NIH F31 National Research Service Award \$80,138 Grant # F31MH126569 Brain Network Maturation and Executive Dysfunction Spanning Diagnostic Categories of Psychopathology |

AWARDS & FELLOWSHIPS

| | | |
|-----------|--|-----------|
| 2023-2026 | Hewitt Research Fellow & Cunningham Scholar | UC Irvine |
| 2021-23 | F31 National Research Service Award | NIH |
| 2015-17 | Intramural Research and Training Award | NIH |
| 2015 | Departmental Honors in Psychology | UMaryland |
| 2015 | Departmental Honors in Philosophy | UMaryland |
| 2010-12 | College Park Scholar in Global Public Health | UMaryland |
| 2010-14 | University of Maryland President's Scholarship | UMaryland |

STIPENDS

| | | |
|---------|---|-----------|
| 2024 | Summer Institute in Neuroscience Mentor Stipend | UC Irvine |
| 2023 | Biomedical Graduate Studies Course Funds | UPenn |
| 2022 | Biomedical Graduate Studies Travel Funds | UPenn |
| 2019 | National Academy of Sciences Travel Award | NAS |
| 2018-20 | Language and Communication Sciences Stipend | UPenn |
| 2013 | College Park Scholars Co-Curricular Scholarship | UMaryland |
| 2011 | Ling Ho Anita K'ung Tong Scholarship | UMaryland |

PRESENTATIONS

TALKS

- [2] **11th Annual Wiki Workshop - Research Track** (virtual). June 20, 2024. Architectural styles of curiosity in global Wikipedia mobile app readership.
- [1] **NeurIPS 2022** Workshop on Information-Theoretic Principles in Cognitive Systems. New Orleans, LA. December 3, 2022. Compression supports low-dimensional representations of behavior across neural circuits. [\[link\]](#)
(< 10% submissions selected)

INVITED TALKS

| | | |
|------|--|----------------|
| 2025 | Santa Fe Institute | SFI |
| 2024 | Walter Eckhart Hewitt Foundation Fellows Symposium | Salk Institute |
| 2023 | International Research Training Group | RWTH Aachen |
| 2023 | Yassa Lab; Bornstein Lab | UC Irvine |
| 2023 | Poldrack Lab | Stanford |
| 2023 | Astle Lab | Cambridge |
| 2019 | Brain Produces the Mind By Modeling | NAS |
| 2017 | Ninth Annual Julius Axelrod Symposium | NIH |

ABSTRACTS

* = mentee

† = co-first

- [21] Dinh, E.[*, †], **Zhou, D.**[†], Guo, J., Noh, S.M., Cooper, K., Bornstein, A.M. Autoencoder models of human graph learning reveal that sparse and dense representations differentially support planning and recall. *Society for Neuroscience*. Chicago, Illinois. October 5-9, 2024.
- [20] **Zhou, D.**, Noh, S., Yassa, M.A., Bornstein, A.M. Pattern separation using compressed and semantic representations of memory. *Conference on Cognitive Computational Neuroscience*. Boston, Massachusetts. August 6-9, 2024.
- [19] Yoo, J.[*], **Zhou, D.**, Bornstein, A.M. Latent cause inference as an efficient and flexible learning rule for cognitive graphs. *Conference on Cognitive Computational Neuroscience*. Boston, Massachusetts. August 6-9, 2024.
- [18] Irizarry-Martinez, G.[*], Leonard, B.T., Adams, J.N., **Zhou, D.**, Granger, S., McMillan, L., Yassa, M.A. Associations between resting-state functional connectivity of the locus coeruleus and anhedonia symptoms in individuals with depression. *International Behavioral Neuroscience Society*. Panama City, Panama. June 11-16, 2024.
- [17] Parkes, L., Kim, J.Z., Stiso, J., Brynildsen, J.K., Cieslak, M., Covitz, S., Gur, R.E., Gur, R.C., Pasqualetti, F., Shinohara, R.T., Stiso, J., **Zhou, D.**, Satterthwaite, T.D., & Bassett, D.S. (2023). Network control theory (NCT) for neuroscientists: a Python-based protocol. *Organization for Human Brain Mapping*. Seoul, South Korea. June 23 - June 27, 2024.

- [16] **Zhou, D.**, Tseytlin, I.[*], Satterthwaite, T.D., & Bassett, D.S. (2023). Predictive coding from compression, control, and recurrent connectivity in human brain networks. *Conference on Cognitive Computational Neuroscience*. Oxford University, Oxford, England. August 24-27, 2023.
- [15] Gataviņš, M.[*], Luo, A., Sydnor, V.J., Shafiei, G., **Zhou, D.**, Gur, R.E., Gur, R.C., Mackey, A.P., Satterthwaite, T.D., Keller, A.S. (2023). Functional network development along the sensorimotor-association axis. *Flux Society*. Santa Rosa, California. September 6-9, 2023.
- [14] **Zhou, D.**, Patankar, S., Gerlach, M., Lydon-Staley, D.M., Zurn, P., & Bassett, D.S. Dynamics Of Curiosity And Complexity In Wikipedia Readers. *Curiosity, Creativity and Complexity conference* (unable to attend). Columbia University, New York City, New York. May 23-25 2023.
- [13] **Zhou, D.**, Kim, J.Z., Pines, A., Sydnor, V.J., Roalf, D.R., Detre, J.A., Gur, R.C., Gur, R.E., Satterthwaite, T.D., & Bassett, D.S. Compression supports low-dimensional representations of behavior across neural circuits. *NeurIPS 2022 Workshop on Information-Theoretic Principles in Cognitive Systems*. New Orleans, LA. December 3, 2022.
- [12] Brynildsen, J. K., **Zhou, D.**, Cosme, D., Jovanova, M., He, X., Mucha, P.J., Ochsner, K.N., Lydon-Staley, D.M. , Falk, E. B., Bassett, D.S. Regulation of alcohol cue reactivity in a social context. *Society for Neuroscience*. San Diego, CA. November 12, 2022.
- [11] **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. Network Fidelity Improves with Brain Network Maturation and Executive Function. *Flux Society*. Paris, France. September 6-9, 2022.
- [10] **Zhou, D.**, Kim, J.Z., Pines, A., Sydnor, V.J., Roalf, D.R., Detre, J.A., Gur, R.C., Gur, R.E., Satterthwaite, T.D., & Bassett, D.S. Communication and compression principles integrate sensation to cognition in human brain networks. *Organization for Human Brain Mapping*. Glasgow, Scotland. June 19-23, 2022.
- [9] **Zhou, D.**, Kang, Y., Cosme, D. Jovanova, M., He, X., Mahadevan, A., Stanoi, O., Brynildsen, J.K., Cooper, N., Cornblath, E.J., Parkes, L., Mucha, P., Ochsner, K., Lydon-Staley, D., Falk, E., and Bassett, D.S. Mindfulness Promotes Control of Network Dynamics for Self-Regulation and Updates the Past to Present. *Organization for Human Brain Mapping*. Glasgow, Scotland. June 19-23, 2022.
- [8] Ju, H., **Zhou, D.**, Blevins, A.S., Lydon-Staley, D.M., Kaplan, J., Tuma, J.R., Bassett, D.S. The network structure of scientific revolutions. *American Physical Society March Meeting* (virtual due to COVID-19). March 15-19, 2021.
- [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. Efficient Coding in the Economics of Human Brain Connectomics. *Organization for Human Brain Mapping*. Montreal, CA (virtual due to COVID-19). June 23-July 3, 2020.
- [6] **Zhou, D.**, Lydon-Staley, D., Zurn, P., Bassett, & D.S. 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. May 1-3, 2019.
- [5] **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L., & Thomas, A.G. Ultra-high field 7-Tesla MRI reveals hippocampal subfield volume

and shape abnormalities in childhood-onset schizophrenia patients compared to healthy siblings and controls. *9th Annual Julius Axelrod Symposium*, Bethesda, Maryland. April 13, 2017.

- [4] **Zhou, D.**, Liu, S., Zhou, X., Berman, R.A., Broadnax, D.D., Rapoport, J.L., & Thomas, A.G. Ultra-High Field 7-Tesla MRI Shape Analysis of Hippocampal Subfields in Childhood-Onset Schizophrenia and Healthy Siblings. *Society of Biological Psychiatry*, San Diego, California. May 18-20, 2017.
- [3] **Zhou, D.**, Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L., & Thomas, A.G. 7-Tesla MRI Reveals Regional Hippocampal Deficits in Childhood-Onset Schizophrenia. *American College of Neuropsychopharmacology*, Hollywood, Florida. In *Neuropsychopharmacology*. December 4-8, 2016.
- [2] **Zhou, D.**, Liu, S., Berman, R.A., Broadnax, D.D., Rapoport, J.L., & Thomas, A.G. 7-Tesla MRI reveals regional hippocampal volume deficits of dentate gyrus in childhood-onset schizophrenia. *Society for Neuroscience*, San Diego, California. November 12-16, 2016.
- [1] **Zhou, D.**, Gochman, P., Broadnax, D.D., Rapoport, J.L., & Ahn, K. 15q13.3 duplication in two patients with childhood-onset schizophrenia. *Society of Biological Psychiatry*, Atlanta, Georgia. May 12-14, 2016.

TEACHING

TEACHING ASSISTANT

- | | | |
|------|--|---------------------|
| 2022 | Goals of Scientific Inquiry; or, On the Curiosity of Beasts (Student evaluation of TA: 3.6/4.0) | (with Dani Bassett) |
| 2020 | Curiosity: Ancient and Modern Thinking About Think- ing (Student evaluation of TA: not rated) | (with Dani Bassett) |
| 2019 | Computational Neuroscience Lab (Student evaluation of TA: 3.7/4.0) | (with Nicole Rust) |

LECTURER

- | | | |
|---------|---|-------------------------|
| 2023-24 | Advanced Topics in Graph Analysis (Johns Hopkins University, School of Engineering Lifelong Learning, Data Science) | (with Will Gray-Roncal) |
|---------|---|-------------------------|

GUEST LECTURER

- | | | |
|---------|--|---------------------|
| 2022 | Goals of Scientific Inquiry (UPenn Bioengineering 571) | (with Dani Bassett) |
| 2019-20 | Network Neuroscience (UPenn Bioengineering 566) | (with Dani Bassett) |
| 2019 | Computational Neuroscience Lab (UPenn Biological Basis of Behavior 310) | (with Nicole Rust) |

STUDENTS ADVISED

- | | | |
|-----|----------------|--|
| [8] | Bianca Leonard | UC Irvine, MD/PhD student in Neurobiology and Behavior Network growth charts with early-life unpredictability |
| [7] | Destiny Edens | NC A&T State University, Summer Student Network structure in psychiatric taxonomy |
| [6] | Emily Dinh | UC Irvine, Research Specialist Cognitive graphs, autoencoders |

- [5] Jungsun Yoo UC Irvine, PhD student in Cognitive Science
Cognitive graphs, latent cause models
- [4] Gimarie Irizarry Martnez UC Irvine, PhD student in Neurobiology and Behavior
Anhedonia; reinforcement learning; value-mediated memory
- [3] Ivan Tseytlin Haverford College, B.S. Physics; Computer Science 2023
Network control theory
(Daylight Computer Company)
- [2] Samantha Simon University of Pennsylvania, B.S. Physics 2023
Diversity in science; semantic networks
(Accenture AI)
- [1] Mark Choi University of Pennsylvania, B.S. Computer Science 2021
Network structure in mathematics
(Meta)

SERVICE

| | | |
|--|---------|--|
| MENTORSHIP | 2024– | Irvine Summer Institute in Neuroscience Program, [link] |
| | | Destiny Edens NC A&T State University, Neuroscience 2024 |
| | 2020–21 | MindCORE Step-Ahead Mentorship Program, [link] |
| | | Mārtiņš M. Gataviņš University of Pennsylvania, Neuroscience 2024 |
| | 2019–21 | Upward Bound: Research Fridays, [link] |
| JOURNAL REVIEWER | | Biological Psychiatry Cerebral Cortex Communications Biology Hippocampus IEEE: Transactions on Network Science and Engineering Network Neuroscience |
| CONFERENCE REVIEWER | | Cognitive Computational Neuroscience <i>2x</i> NeurIPS (Information-Theoretic Principles in Cognitive Systems workshop) Web Conference (Wiki Workshop) <i>2x</i> |
| CO-ORGANIZER & PROGRAM COMMITTEE | | Innovators in Cognitive Neuroscience Symposia Web Conference (Wiki Workshop) |
| HACKATHONS | | Stiso, J.* & Zhou, D.* (2020). <i>Tools for Combating Citation Bias</i> . Organization for Human Brain Mapping Hackathon, Montreal, Canada. June 16–18, 2020. [link] |
| INVITED TALKS | | Citation Diversity Tutorial, Annual Meeting for the Neuroscience Training Grant; Vision Training Grant; and Computational Approaches to the Neuroscience of Audition Training Grant, University of Pennsylvania. June 7, 2021. |
| | | Panelist, Post-Baccalaureate Research Experiences, University of Maryland. March 30, 2017. |
| DIVERSITY, EQUITY, & INCLUSION | 2019– | Creator/Maintainer, Citation Diversity Statement Code Notebook [link] |

- Used and cited in > 100 articles across > 30 journals.
 - Contributions from researchers across 11 universities, including UPenn, MIT, Columbia, University of Michigan, Leiden University, and Technical University of Munich.
 - Highlighted by **Nature**, **Cell**, and **Science** journals.
- 2024 Summer Institute in Neuroscience
- University of California-Historically Black Colleges and Universities (UC-HBCU) Initiative.
- 2022 Kamen’s Lens. Rebecca Kamen, S.J. Fowler, Dale Zhou. *Dyslexic Dictionary*. Organized and curated by Gil Gershoni, Tasmin Smith, and Ted Gioia. Arion Press Gallery, 1802 Hays Street, The Presidio, San Francisco, CA. October 22–December 22, 2022. [\[link\]](#) [\[video 1\]](#) [\[video 2\]](#)
- 2020–22 Organizing Committee, Innovators in Cognitive Neuroscience Symposia. [\[link\]](#)
- 2020 Stiso, J.* & **Zhou, D.*** (2020). *Tools for Combating Citation Bias*. Organization for Human Brain Mapping Hackathon, Montreal, Canada. June 16–18, 2020. [\[link\]](#)
- 2020–21 Web Developer, Black in STEM in Academia

OUTREACH

ORGANIZATIONS

| | | |
|---------|--|-----------|
| 2024– | Mentor | UC Irvine |
| | Summer Institute in Neuroscience | |
| 2020–22 | Organizing Committee | UPenn |
| | Innovators in Cognitive Neuroscience | |
| 2020–21 | Web Developer | UPenn |
| | Black in STEM in Academia | |
| 2019–20 | Organizer, Web Developer | UPenn |
| | Penn Network Visualization program | |
| 2019–21 | Apprentice Chief | UPenn |
| | Upward Bound: Research Fridays | |
| 2019–20 | Committee member | UPenn |
| | APICAL Service Award | |
| 2017–20 | Section Chief | UPenn |
| | Brains in Brief science communication | |
| 2017–18 | Founder | UMaryland |
| | Psychology Honors Alumni | |
| 2014–15 | Vice President | UMaryland |
| | Philosophy Club | |

ART

EXHIBITIONS

- [2] Kamen’s Lens. Rebecca Kamen, S.J. Fowler, Dale Zhou. *Dyslexic Dictionary*. Organized and curated by Gil Gershoni, Tasmin Smith, and Ted Gioia. Arion Press Gallery, 1802 Hays Street, The Presidio, San Francisco, CA. October 22–December 22, 2022. [\[link\]](#) [\[video 1\]](#) [\[video 2\]](#)
- [1] Sparking Curiosity. Dale Zhou, David Lydon-Staley, Perry Zurn, and Dani Bassett. *Reveal: The Art of Reimagining Scientific Discovery*. Organized and curated by Rebecca Kamen and Sarah Tanguy. Museum at the Katzen Arts Center, American University, Washington, D.C., August 29–December 12, 2021. [\[link\]](#)

ART CATALOGS

The Connected Brain. Human Brain Mapping Conference. ISBN 9798357985361

MEDIA

- [5] Natalia Gass. (February 17, 2023) *Neural states during mindful attention*. [*Nature Mental Health*](#).
- [4] Nathi Magubane (January 26, 2023) *Through the lens: A digital depiction of dyslexia*. [*Penn Today*](#).
- [3] Diana Kwon (March 22, 2022) *The rise of citational justice: how scholars are making references fairer*. [*Nature*](#).
- [2] Melissa Pappas (January 26, 2021) *Researchers measure different types of curiosity studying hunters and busybodies*. [*Penn Today*](#).
- [1] Melissa Pappas (January 12, 2021) *Studying Hunters and Busybodies, Penn and American University Researchers Measure Different Types of Curiosity*. [*Penn Engineering Today*](#).

CODE

- [4] **Zhou, D.** (2022). Sparking Curiosity, [\[link\]](#)
- [3] **Zhou, D.**, Stiso, J., Cornblath, E.J., Teich, E.G., Blevins, A.S., Oudyk, K., Cleanthis, M., Urai, A., Matelsky, J., Virtualmario, Camp, C., Alacantha Castillo, R., Saxe, R., Dworkin, J.D., & Bassett, D.S. (2022). *Citation Diversity Statement and Code Notebook v1.1.3*. Zenodo. [DOI: 10.5281/zenodo.7375250](#)
- [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](#)

TRAINING

PROGRAMMING

R | Python | MATLAB | JavaScript | Bash

IMAGE

PROCESSING

Nipype | Freesurfer | ANTs | FSL | AFNI

EXPERIMENTAL

DESIGN

jsPsych, psiTurk, Prolific

MODELING

Dynamics on networks | Temporal networks | Multi-layer networks | Agent-based modeling | Evolutionary computation | Control theory | Information theory | Natural language processing | Generalized additive models

WORKSHOPS

Cognitive Foundations in Decision-Making. Rabat, Morocco. July 22-27, 2024

Unity and Virtual Reality for Research Workshop. University of California, Irvine. June 13, 2024

Collective Intelligence: Foundations + Radical Ideas symposium & short course.
Santa Fe, NM. June 19, 2023

NeurIPS 2022 Workshop on Information-Theoretic Principles in Cognitive Systems workshop. New Orleans, LA. December 3, 2022

Summer Workshop in Cognitive Electrophysiology, Philadelphia, PA (virtual).
August 4-13, 2020.

Computational Psychiatry Summer Course, New York, NY. July 29-30, 2019.