

gregorykiar

biomedical engineering & computational neuroscience



contact

Montreal, Quebec
Canada

gkiar07@gmail.com
gkiar.me
gkiar

languages

native English speaker

programming

Python, R, Bash
MATLAB, C++, AWS,
Ruby, LaTeX, etc.

soft skills

leadership, teaching,
sci. comm., design,
problem solving

research interests

stability, reproducibility,
neurosci., genomics,
machine learning

personal interests

sports analytics, design,
biking, paddling

education

2017 – 2021	Ph.D. in Biomedical Engineering	McGill University, Montreal, QC
	Thesis work supervised by Alan Evans and Tristan Glatard on a project entitled: This is Your Brain on Disk: The Impact of Numerical Instabilities in Neuroscience. Project involved the development of high performance computing infrastructures, the instrumentation and perturbation of neuroimaging pipelines, the evaluation of these perturbations in an analytic context, and the application of perturbed derivatives towards data augmentation in machine learning applications. All code and data have been made publicly available.	
2014 – 2016	M.S.E in Biomedical Engineering	Johns Hopkins University, Baltimore, MD
	Thesis work was supervised by Joshua T. Vogelstein on a project entitled: GREMLIN: Graph Estimation from MR images Leading to Inference in Neuroscience. All code and data have been made publicly available.	
2010 – 2014	B.Eng in Biomedical and Electrical Engineering	Carleton University, Ottawa, ON
	Capstone work was supervised by Leonard MacEachern on a project entitled: Electrical muscle stimulation with concurrent EMG feedback of the upper arm for applications in stroke rehabilitation.	
2018	Software and Data Carpentry Instructor Training	Compute Canada, Toronto, ON
	Running workshops in the context of an evidence-based instructional pedagogy.	
2016	Exploring the Human Connectome	The Human Connectome Project, Boston, MA
	Development and deployment of connectome estimation pipelines.	
2015	Presenting Data and Information	Edward Tufte, Baltimore, MD
	Cultivate skills in effective communication with scientific figures.	

experience

Research Experience

04/21 – now	Child Mind Institute <i>Research Scientist</i>	New York City, NY
	Responsible for evaluating and improving the trustworthiness of tools and techniques used to study the brain. Evaluates the numerical stability of analyses to inform decision making surrounding robust data collection, image processing, and ultimately biomarker discovery. Applies expertise in computational statistics, uncertainty quantification, and machine learning towards developing robust and generalizable models of the healthy and diseased brain.	
05/17 – 04/21	McGill Centre for Integrative Neuroscience <i>Software Developer & Researcher</i>	Montreal, QC
	Responsible for the exploration and integration of distributed software services with high performance computing clouds and clusters, providing development, training, and support towards the use of tools and services within international collaborations. Focused on the development of methods for evaluating the trustworthiness and stability of neuroimaging tools and experiments.	

04/19 – 07/19	Empenn, Inria Rennes - Bretagne Atlantique <i>Research Intern</i> Developed web crawler to scrape public neuroimaging databases for processed functional activation maps. Constructed workflow for metadata based QC at scale with 10,000s of samples. Designed and trained a convolutional neural network model for the identification of consensus activation maps across populations.	Rennes, France
09/14 – 05/17	Center for Imaging Science, Johns Hopkins University <i>Research Engineer</i> Development and maintenance of an open-source pipeline for structural connectome estimation in humans and implemented statistical algorithms for quality control of data derivatives. Publicly released data products to lower the barrier to entry for neuroscience research. Chiefly responsible for grant reporting and public presence at conferences and workshops.	Baltimore, MD
06/13 – 09/13	Dept. of Systems and Computer Engineering, Carleton University <i>Research Assistant with Dr. Rafik Goubran</i> Developed wireless medical data publish-subscribe system for viewing patient vital signs remotely.	Ottawa, ON
06/12 – 09/12	Dept. of Systems and Computer Engineering, Carleton University <i>Research Assistant with Dr. Andy Adler</i> Utilized neural networks for inverse modeling of real and simulated biological systems.	Ottawa, ON
06/11 – 09/11	Dept. of Biology, Carleton University <i>Research Assistant with Dr. Jeffrey Dawson</i> Developed robotics platform for studying insect locomotion patterns and behaviour.	Ottawa, ON
01/09 – 09/09	CRC, Ottawa Hospital Research Institute <i>Research Assistant with Dr. Jim Dimitroulakos</i> Tested combination therapies of Lovastatin and Cisplatin drugs on colon and breast cancer strains.	Ottawa, ON

Teaching Experience

01/19 – 01/20	Concordia Continuing Education <i>Instructor & Curriculum Developer</i> Responsible for the training of working professionals in the basics of "Big Data Technology," including fundamental tools for software development such as Unix, Git, and Docker, and software for numerical analysis such as Python and R. Core contributor in the development of new courses within the "Big Data Solutions for Business" diploma program.	Montreal, QC
05/17 – now	McGill University, OHBM, Brainhack School, Brain Intensive, others <i>Neuroinformatics Instructor</i> Regularly plan and teach a series of workshop introducing neuroscientists and trainees to methods in neuroinformatics. Developed and publicly released all course content on GitHub under the "Brainhack101" moniker and several videos on YouTube under the "BrainIntensive" profile.	Montreal, QC
09/14 – 05/17	Dept. of Biomedical Engineering, Johns Hopkins University <i>Teaching Assistant</i> Responsible for instruction, evaluation, and content design for: Freshman Modeling and Design for BME (2014, 2015), Systems and Controls (2015), Statistical Connectomics (2015), The Art of Data Science (2016), NeuroData Design (2016). Spent more than 500 hours working with students.	Baltimore, MD
01/{15, 16, 17}	Dept. of Computer Science, Johns Hopkins University <i>Instructor</i> Responsible for instruction, evaluation, and content design for intensive 3-week project-based course on an introduction to connectomics research across multiple scales and experimental modalities. Spent more than 300 hours planning, designing course content, and working with students.	Baltimore, MD

09/12 - 05/14	Student Academic Success Center, Carleton University <i>Facilitator for Peer-Assisted Study Sessions</i> Instructed and demonstrated mastery of principles in electromagnetism and power engineering. Spent more than 300 hours working with students.	Ottawa, ON
08/13 - 05/14	Student Academic Success Center, Carleton University <i>Facilitator Team Leader</i> Provided training, mentoring, and coaching to student instructors in a variety of disciplines. Spent more than 100 hours training and working with facilitators.	Ottawa, ON
01/13 - 06/14	Dept. of Systems and Computer Engineering, Carleton University <i>Teaching Assistant</i> Instructed introductory level C++ programming. Led lab sessions and instructional workshops. Spent more than 300 hours working with students.	Ottawa, ON

memberships & extracurriculars

2020 - now	XSEDE, NSF XSEDE Review Allocation Committee Member	Alexandria, VA
2017 - now	Various Neuroinformatics-based Hackathons and Courses Hackathon Chair, Organizer, & Instructor	Montreal, QC
2020	COVID-19 HPC Consortium Review Allocation Committee Member	Global
2017 - 2020	Canadian Open Neuroscience Platform Training Committee Trainee Representative	Montreal, QC
2017 - 2020	OHBM Open Science SIG Treasurer, Educational Committee Liaison	Minneapolis, MN
2018 - 2019	Ludmer Centre Seeds of Change Campaign Trainee Ambassador	Montreal, QC
2017 - 2018	OHBM Open Science SIG Hackathon Chair	Minneapolis, MN
2017 - 2018	Healthy Brains for Healthy Lives Trainee Committee President (Neuroinformatics)	Montreal, QC
2014 - 2017	NeuroData Neurocartographer	Baltimore, MD
2015 - 2017	College Prep Program College Mentor, SAT Coach, & Essay Reviewer	Baltimore, MD
2014 - 2016	Thread Grandparent (i.e. supervisor) & Family Member (i.e. mentor)	Baltimore, MD
2013 - 2014	Carleton University Biomedical Engineering Society President	Ottawa, ON
12/12, 12/13	Operation Red Nose Ottawa Navigator and Driver	Ottawa, ON
2010 - 2011	Carleton University Student Emergency Response Team Emergency First Responder	Ottawa, ON

awards

2020	Research Scholar Award	Canadian Open Neuroscience Platform, Montreal, QC
2019	Young Investigator Award	Sage Bionetworks, Seattle, WA
2019	Instructor Training Fellowship	Repronim, Worcester, MA
2019	Globalink Research Award	Mitacs, Montreal, QC
2018	Michael Smith Foreign Study Supplement	NSERC, Ottawa, ON
2018	Alexander Graham Bell Canada Graduate Scholarship (CGS D)	NSERC, Ottawa, ON
2017	Healthy Brains for Healthy Lives Doctoral Fellowship	McGill University, Montreal, QC
2017	CRN Coding Sprint Project Award	Stanford University, Palo Alto, CA
2017	OHBM BrainHack Travel Award	OHBM, Minneapolis, MN
2014 – 2016	Full-tuition Master's Degree Fellowship	Johns Hopkins University, Baltimore, MD
2014	Graduated with Distinction	Carleton University, Ottawa, ON
2014	Greatest Social Impact Paper	Professional Engineering Ontario (PEO), Ottawa, ON
2014	SEED Fund	Carleton University Engineering Alumni, Ottawa, ON
2014	IEEE Papers Showcase Local Winner	IEEE Ottawa-Carleton Chapter, Ottawa, ON
2014	Carleton Electronics Project Competition Champion	Carleton University, Ottawa, ON
2013	Engineering '65 and '66 Scholarship	Carleton University, Ottawa, ON
2012 – 2014	Dean's Honour List	Carleton University, Ottawa, ON
2012	Clarence C. Gibson Scholarship	Carleton University, Ottawa, ON

supervision

1. Hamidreza Heidarzadeh (MSc in Computer Science, Concordia University; with Tristan Glatard)

reviewed for

1. COVID-19 High Performance Computing Consortium
2. Cluster Computing
3. Extreme Science and Engineering Discovery Environment (XSEDE)
4. Frontiers in Neuroinformatics
5. Gigascience
6. Journal of Open Source Software
7. Medical Image Analysis
8. Scipy Conference

publications

pre-prints

1. Brainhack: developing a culture of open, inclusive, community-driven neuroscience
Remi Gau, Stephanie Noble, Katja Heuer, Katherine Bottenhorn, Isil Poyraz Bilgin, Yu-Fang Yang, Julia Huntenburg, Johanna Margarete Marianne Bayer, Richard Bethlehem, Shawn A Rhoads
(2021). PsyArXiv.
2. Data Augmentation Through Monte Carlo Arithmetic Leads to More Generalizable Classification in Connectomics
Gregory Kiar, Yohan Chatelain, Ali Salari, Alan C Evans, Tristan Glatard
bioRxiv (Dec. 2020). Cold Spring Harbor Laboratory.
3. Numerical Instabilities in Analytical Pipelines Lead to Large and Meaningful Variability in Brain Networks
G. Kiar, Y. Chatelain, P. Oliveira Castro, E. Petit, A. Rokem, G. Varoquaux, B. Masic, A. C. Evans, T. Glatard
bioRxiv (Nov. 2020). Cold Spring Harbor Laboratory.
4. Eliminating accidental deviations to minimize generalization error: applications in connectomics and genomics
E. W. Bridgeford, S. Wang, Z. Yang, Z. Wang, T. Xu, C. Craddock, J. Dey, **G. Kiar**, W. .R. Gray-Roncal, C. Coulantoni
bioRxiv (Sept. 2020) p. 802629. Cold Spring Harbor Laboratory.

articles in peer-reviewed journals

1. File-based localization of numerical perturbations in data analysis pipelines
A. Salari, **G. Kiar**, L. Lewis, A. C. Evans, T. Glatard
arXiv preprint arXiv:2006.04684 (2020).
2. Comparing perturbation models for evaluating stability of neuroimaging pipelines
G. Kiar, P. de Oliveira Castro, P. Rioux, E. Petit, S. T. Brown, A. C. Evans, T. Glatard
The International Journal of High Performance Computing Applications (2020) p. 109434202092623.
3. A quantitative EEG toolbox for the MNI Neuroinformatics ecosystem: normative SPM of EEG source spectra
J. Bosch-Bayard, E. Aubert-Vazquez, S. T. Brown, C. Rogers, **G. Kiar**, T. Glatard, L. Scaria, L. Galan-Garcia, M. L. Bringas-Vega, T. Virues-Alba
Frontiers in Neuroinformatics 14 (2020). Frontiers Media SA.
4. Neural correlates of polygenic risk score for autism spectrum disorders in general population
B. Khundrakpam, U. Vainik, J. Gong, N. Al-Sharif, N. Bhutani, **G. Kiar**, Y. Zeighami, M. Kirschner, C. Luo, A. Dagher, A. C. Evans
Brain Communications (July 2020). fcaa092.
5. Brain status modeling with non-negative projective dictionary learning
M. Zhang, C. Desrosiers, Y. Guo, B. Khundrakpam, N. Al-Sharif, **G. Kiar**, P. Valdes-Sosa, J. B. Poline, A. C. Evans
Neuroimage (Oct. 2019) p. 116226.
6. PyBIDS: Python tools for BIDS datasets
T. Yarkoni, C. Markiewicz, A. Vega, K. Gorgolewski, T. Salo, Y. Halchenko, Q. McNamara, K. DeStasio, J. B. Poline, D. Petrov, V. Hayot-Sasson, D. Nielson, J. Carlin, **G. Kiar**, K. Whitaker, E. DuPre, A. Wagner, L. Tirrell, M. Jas, M. Hanke, R. Poldrack, O. Esteban, S. Appelhoff, C. Holdgraf, I. Staden, B. Thirion, D. Kleinschmidt, J. Lee, M. Castello, M. Notter, R. Blair
JOSS 4.40 (Aug. 2019) p. 1294.

7. A Serverless Tool for Platform Agnostic Computational Experiment Management
G. Kiar, S. T. Brown, T. Glatard, A. C. Evans
Frontiers in Neuroinformatics 13 (Mar. 2019) p. 12.
8. Container-Based Clinical Solutions for Portable and Reproducible Image Analysis
J. Matelsky, **G. Kiar**, E. Johnson, C. Rivera, M. Toma, W. Gray-Roncal
Journal of Digital Imaging 31.3 (May 2018) pp. 315–320. Springer Nature.
9. Boutiques: a flexible framework to integrate command-line applications in computing platforms
T. Glatard, **G. Kiar**, T. Aumentado-Armstrong, N. Beck, P. Bellec, R. Bernard, A. Bonnet, S. T. Brown, S. Camarasu-Pop, F. Cervenansky, S. Das, R. Ferreira da Silva, G. Flandin, P. Girard, K. J. Gorgolewski, C. R. G. Guttmann, V. Hayot-Sasson, P. O. Quirion, P. Rioux, M. E. Rousseau, A. C. Evans
GigaScience 7.5 (Mar. 2018). Oxford University Press (OUP).
10. BIDS apps: Improving ease of use, accessibility, and reproducibility of neuroimaging data analysis methods
K.J. Gorgolewski, F. Alfaro-Almagro, T. Auer, P. Bellec, M. Capotă, M. M. Chakravarty, N. W. Churchill, A. L. Cohen, R. C. Craddock, G. A. Devenyi, A. Eklund, O. Esteban, G. Flandin, J. S. Guntupalli, M. Jenkinson, A. Keshavan, **G. Kiar**, P. R. Raamana, D. Raffelt, C. J. Steele, P. O. Quirion, R. E. Smith, S. Strother, G. Varoquaux, T. Yarkoni, Y. Wang, R. A. Poldrack
13.3 (2017) e1005209. Public Library of Science.
11. Science In the Cloud (SIC): A use case in MRI Connectomics
G. Kiar, K. J. Gorgolewski, D. Kleissas, W. R. Gray Roncal, B. Litt, B. Wandell, R. A. Poldrack, M. Wiener, R. J. Vogelstein, R. Burns, J. T. Vogelstein
GigaScience gix013 (Mar. 2017).
12. To the Cloud! A Grassroots Proposal to Accelerate Brain Science Discovery
J. T. Vogelstein, B. Mensh, M. Häusser, N. Spruston, A. C. Evans, K. Kording, K. Amunts, C. Eboll, J. Muller, M. Telefont, S. Hill, S. P. Koushika, C. Cali, P. A. Valdés-Sosa, P. B. Littlewood, C. Koch, S. Saalfeld, A. Kepcs, H. Peng, Y. O. Halchenko, **G. Kiar**, M. M. Poo, J. B. Poline, M. P. Milham, A. P. Schaffer, R. Gidron, H. Okano, V. D. Calhoun, M. Chun, D. M. Kleissas, R. J. Vogelstein, E. Perlman, R. Burns, R. Huganir, M. I. Miller
Neuron 92.3 (Nov. 2016) pp. 622–627. Elsevier, requested article.
13. Grand Challenges for Global Brain Sciences
J. T. Vogelstein, K. Amunts, A. Andreou, D. Angelaki, G. Ascoli, C. Bargmann, R. Burns, C. Cali, F. Chance, M. Chun, G. Church, H. Cline, T. Coleman, S. de La Rochefoucauld, W. Denk, A. Belen Elgoyhen, R. E. Cummings, A. Evans, K. Harris, M. Häusser, S. Hill, S. Inverso, C. Jackson, V. Jain, R. Kass, B. Kasthuri, **G. Kiar**, K. Kording, S. Koushika, J. Krakauer, S. Landis, J. Layton, Q. Luo, A. Marblestone, D. Markowitz, J. McArthur, B. Mensh, M. Milham, P. Mitra, P. Nesovic, M. Nicolelis, R. O'Brien, A. Oliva, G. Orban, H. Peng, A. Picchini-Schaffer, M. Picciotto, J.-B. Poline, M.-m. Poo, A. Pouget, S. Raghavachari, J. Roskams, T. Sejnowski, F. Sommer, N. Spruston, L. Swanson, A. Toga, R. J. Vogelstein, R. Yuste, A. Zador, R. Huganir, M. Miller
ArXiv e-prints (Aug. 2016).

proceedings in international peer-reviewed conferences

1. Deploying Large Fixed File Datasets with SquashFS and Singularity
P. Rioux, **G. Kiar**, A. Hutton, A. C. Evans, S. T. Brown
PEARC '20 (2020) pp. 72–76. Association for Computing Machinery.
2. Organization for Human Brain Mapping Open Science Hackathons: Accessible and Inclusive Neuroinformatics
E. DuPre*, **G. Kiar***, R. C. Craddock, K. J. Gorgolewski, F. Hoffstaedter, A. Keshavan, J. B. Poline, M. Visconti di Oleggio Castello, K. Whitaker, P. Bellec
2nd Workshop on Hacking and Making at Time-Bounded events (Jan. 2018). Computer Human Interaction.

3. Electric localization of weakly electric fish using neural networks

G. Kiar, Y. Mamatjan, J. Jun, L. Maler, A. Adler

Journal of Physics: Conference Series vol. 434 (May 2013).

book chapters

1. The Montreal Neurological Institute Ecosystem: Enabling Reproducible Neuroscience from Collection to Analysis in the Web
G. Kiar, C. Makowski, J. B. Poline, S. Das, A. C. Evans
(Nov. 2017) pp. 51–56. Society for Neuroscience.

invited talks & organized workshops

1. Evaluating the Stability of Neuroimaging Pipelines
National Institute of Mental Health (Feb. 2020), Presentation.
2. Comparing Perturbation Models for Evaluating Stability of Neuroimaging Pipelines
Computational Reproducibility at Exascale (Nov. 2019), Super Computing, Presentation.
3. From “Open Science” to “Science”: Shifting the status quo in data sharing, software, and publishing
Organization for Human Brain Mapping (June 2019), Symposium and presentation.
4. Introduction to Scientific Software Development and Machine Learning
Healthy Brains for Healthy Lives (Feb. 2019), McGill University, Workshop.
5. A FAIR Approach to Neuroimaging Analysis with Boutiques
Organization for Human Brain Mapping (June 2018), Presentation.
6. Connectome Coding: what is it, how do we do it, and why do we care?
Data science in Neuroscience Symposium (June 2018), Organization for Human Brain Mapping, Presentation.
7. OHBM Annual BrainHack & TrainTrack
Open Science Special Interest Group (June 2018), Organization for Human Brain Mapping, Workshop.
8. Brainhack Global: Montreal Edition
McGill University & Universite de Montreal (June 2018), Workshop.
9. A Data Driven Approach for Tackling Big Data Connectomics
Feindel Brain Imaging Lecture (Feb. 2018), Montreal Neurological Institute, Presentation.
10. Coding for Neuroscientists: An Introduction to Neuroscience Informatics
Graduate Student Association for Neuroscience (Jan. 2018), McGill University, Workshop.
11. BigNeuro 2017: Analyzing brain data from nano to macroscale
Neural Information Processing Systems (Dec. 2017), Workshop.
12. Enabling Accessible and Scalable Neuroscience
Healthy Brains For Healthy Lives (Nov. 2017), McGill University, Presentation.
13. Platforms for high performance computing in neuroscience
Neuroinformatics in the Age of Big Data: Working with the Right Data and Tools (Nov. 2017), Society for Neuroscience, Workshop.

14. Brainhack101 & Exploratory Data Analysis
Online Intensive for Brain Science: Computation and Imaging (Sept. 2017), National Institute of Health, Presentation.
15. CloudControl: Integrating Quality Control and Pipeline Deployment in the Cloud
Open Science Special Interest Group (June 2017), Organization for Human Brain Mapping, Presentation.
16. Open Science Session Chair
Open Science Special Interest Group (June 2017), Organization for Human Brain Mapping, Workshop.
17. Science in the Cloud (SIC): A use-case in MRI Connectomics
Open Science Special Interest Group (June 2017), Organization for Human Brain Mapping, Presentation.
18. Brain Hacking 101
Open Science Special Interest Group (June 2017), Organization for Human Brain Mapping, Presentation.
19. NeuroStorm: Accelerating Brain Science Discovery in the Cloud
Johns Hopkins University (June 2017), National Science Foundation, Workshop.

posters at international conferences

1. Validation of an epidemic spreading model to simulate A spread in familial Alzheimer's disease
E. Levitis, J. Vogel, **G. Kiar**, T. Funck, Y. Ituria, A. C. Evans
Organization for Human Brain Mapping (June 2020).
2. Exploring the Relationship Between Early Psychosis Verbal Memory Deficits and White Matter Integrity
C. Henri-Bellemare, **G. Kiar**, K Lavigne, R. Patel, M. M. Chakravarty, M. Lepage
Organization for Human Brain Mapping (June 2020).
3. Human Structural Connectomes are Heritable
J. Chung, J. Dey, **G. Kiar**, C. E. Priebe, J. T. Vogelstein
Organization for Human Brain Mapping (June 2020).
4. Incorporating quantitative EEG analysis into the MNI Open Science neuroinformatics ecosystem
J. Bosch-Bayard, C. Rogers, E. Aubert, S. T. Brown, **G. Kiar**, T. Glatard, L. Galán-García, T. Bringas Vega, S. Das, C. Madjar, Z. Mohades, L. MacIntyre, A. C. Evans, P. Valdes-Sosa
Organization for Human Brain Mapping (June 2020).
5. Fuzzy: An Ecosystem for Evaluating the Stability of Pipelines Through Monte Carlo Arithmetic
G. Kiar, A. Salari, R. Hannema, M. Vadariya, M. Dugre, P. Rioux, P. Douglas, S. T. Brown, P. Oliveira Castro, E. Petit, A. C. Evans, T. Glatard
Organization for Human Brain Mapping (June 2020).
6. Optimal Experimental Design for Big Data: Applications in Brain Imaging
E. Bridgeford, S. Wang, Z. Yang, Z. Wang, T. Xu, C. Craddock, J. Dey, **G. Kiar**, W. R. Gray-Roncal, C. E. Priebe, B. Caffo, M. Milham, X. N. Zuo, J. T. Vogelstein
Organization for Human Brain Mapping (June 2020).
7. New Open Science features in the CBRAIN Platform
N. Beck, P. Rioux, **G. Kiar**, S. T. Brown, C. Czech, S. Boroday, X. Lecours-Boucher, D. Quesnel, C. Rogers, N. Khalili-Mahani, R. Adalat, T. Glatard, S. Das, A. C. Evans
Organization for Human Brain Mapping (June 2020).

8. Nilearn and Nistats: Machine learning and statistics for fMRI in Python
J. Dockès, K. Chawla, A. Abraham, T. Bazeille, M. Boos, S. Bougacha, D. Bzdok, J. A. Chevalier, K. Dadi, G. de Hollander, C. Delettre, E. DuPre, D. Gale, K. Gorgolewski, A. Gramfort, A. Grigis, R. Guidotti, R. Hammonds, A. Hoyos-Idrobo, J. Huntenburg, **G. Kiar**, E. Larson, G. Lemaitre, F. Liem, C. Markiewicz, T. B. Nguyen, A. L. Pinho, D. Pisner, M. Rahim, P. Sanz-Leon, S. Takerkert, B. Thirion, J. Vogel, J. Wiesner, G. Varoquaux
Organization for Human Brain Mapping (June 2020).
9. Enabling FAIR Scientific Tool Development, Dissemination, and Consumption with Boutiques
G. Kiar, E. Benderoff, J. Charrière, S. Dubé, L. O. Guérin, A. Bonnet, S. Camarasu-Pop, N. Beck, P. Rioux, S. Boroday, S. T. Brown, J. B. Poline, A. E. Evans, T. Glatard
Sage Assembly (July 2019).
10. A FAIR Approach to Neuroimaging Analysis with Boutiques
G. Kiar, E. Benderoff, J. Charrière, S. Dubé, L. O. Guérin, A. Bonnet, S. Camarasu-Pop, N. Beck, P. Rioux, S. Boroday, S. T. Brown, J. B. Poline, A. E. Evans, T. Glatard
Organization for Human Brain Mapping (June 2019).
11. Reverse Engineering the Human Connectome: Learning Function from Structure
L. E. Suarez, **G. Kiar**, R. A. Doyle, A. C. Evans, B. Misic
Resting State Brain Connectivity (Sept. 2018).
12. PIVT: A Platform Independent Visualization Tool
A. Taheri, J. Lurie, R. Abou-Haidar, S. T. Brown, S. Das, A. Doyle, N. Khalili-Mahani, **G. Kiar**, P. Kostopoulos, C. Lepage, L. Lewis, C. Makowski, C. Rogers, P. Toussaint, A. C. Evans
Organization for Human Brain Mapping (June 2018).
13. Pybids: Python tools for manipulation and analysis of BIDS datasets
T. Yarkoni, A. de la Vega, E. DuPre, O. Esteban, Y. Halchenko, M. Hanke, V. Hayot-Sasson, A. Ivanov, **G. Kiar**, C. Markiewicz, Q. McNamara, D. Petrov, J. B. Poline, R. Poldrack, K. J. Gorgolewski
Organization for Human Brain Mapping (June 2018).
14. A Principled Approach to Statistical Connectomics and Mega-Analysis
E. Bridgeford, **G. Kiar**, V. Chandrashekhar, C. Shen, C. E. Gray Roncal, B. Caffo, J. Vogelstein
Organization for Human Brain Mapping (June 2018).
15. Exploring whole-brain structural connectivity and cognitive performance in typical development
N. Al-Sharif, **G. Kiar**, B. Khundrakpam, A. C. Evans
Organization for Human Brain Mapping (June 2018).
16. Clowdr: a micro-service model for scalable, reproducible, and accessible neuroinformatics
G. Kiar, T. Glatard, S. T. Brown, A. C. Evans
Organization for Human Brain Mapping (June 2018).
17. Creativity is Unrelated to Intelligence and Personality: A Machine Learning Study
A. Doyle, **G. Kiar**, P. Toussaint, P. Lemaitre, A. C. Evans
Organization for Human Brain Mapping (June 2018).
18. An Extensible Application Programming Interface for Querying Distributed Neuroscience Datasets
G. Kiar, T. Glatard, J. B. Poline
Organization for Human Brain Mapping (June 2018).

19. Heterogeneous tau-PET signal in the hippocampus resolves discrepancies between imaging and pathology
J. Vogel, R. Ossenkoppele, **G. Kiar**, O. Hansson, A. C. Evans
Organization for Human Brain Mapping (June 2018).
20. Numerical error propagation in the HCP structural pre-processing pipelines
A. Salari, L. Scaria, **G. Kiar**, T. Glatard
Organization for Human Brain Mapping (June 2018).
21. BIDS apps: Improving ease of use, accessibility, and reproducibility of neuroimaging data analysis methods
K.J. Gorgolewski, F. Alfaro-Almagro, T. Auer, P. Bellec, M. Capotă, M. M. Chakravarty, N. W. Churchill, A. L. Cohen, R. C. Craddock, G. A. Devenyi, A. Eklund, O. Esteban, G. Flandin, J. S. Guntupalli, M. Jenkinson, A. Keshavan, **G. Kiar**, P. R. Raamana, D. Raffelt, C. J. Steele, P. O. Quirion, R. E. Smith, S. Strother, G. Varoquaux, T. Yarkoni, Y. Wang, R. A. Poldrack
Organization for Human Brain Mapping (June 2017).
22. MR Graph with Rich attribUTEs DataBase (Mr. GruteDB)
G. Kiar, W. R. Gray Roncal, D. Mhembere, E. W. Bridgeford, S. Wang, C. E. Priebe, R. Burns, J. T. Vogelstein
Organization for Human Brain Mapping (June 2016).
23. The Open Connectome Project & NeuroData: Enabling Data Driven Neuroscience at Scale
Joshua T. Vogelstein, et al.
Society for Neuroscience (Oct. 2015).
24. Community Connectomics via Cloud Computing Utilizing m2g: a Reference Pipeline
G. Kiar, W. R. Gray Roncal, D. Mhembere, E. W. Bridgeford, D. Clark, M. P. Milham, R. C. Craddock, R. Burns, J. T. Vogelstein
Organization for Human Brain Mapping (June 2015).

published code

For an up-to-date list of published code projects, please visit my GitHub profile at <https://github.com/gkiar>.