WAKE FOREST UNIVERSITY SCHOOL OF MEDICINE
Curriculum Vitae

NAME Mohsen Bahrami, M.S., Ph.D.

ACADEMIC TITLE: Assistant Professor of Radiology

ADDRESS
Department of Radiology
Wake Forest School of Medicine
Medical Center Boulevard
Winston-Salem, NC 27157
(336) 716-6129
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EDUCATION

2010 Razi University
Kermanshah, Iran
Bachelor of Science / Electrical Engineering

2014 University of Tehran
Tehran, Iran
Master of Science / Biomedical Engineering
Research Advisor: Gholam-Ali Hossein-Zadeh, PhD.
Thesis: Analysis and Comparison of fMRI Resting-State Functional Connectivity in Patients with Alzheimer's Disease and Healthy Controls

2019 The Virginia Tech-Wake Forest University School of Biomedical Engineering and Sciences (SBES)
College/University
Winston-Salem, NC
Ph.D. Biomedical Engineering
Research Advisors: Paul J. Laurienti, MD, PhD. & Sean L. Simpson, PhD
Thesis: Brain Networks: Multivariate Tools to Analyze Structure, Function, and Dynamics

POSTDOCTORAL TRAINING

2020 - 2021 Research Associate, Wake Forest University School of Medicine, Department of Radiology
Research Advisor: Sean L. Simpson, Ph.D. & Paul J. Laurienti, M.D., Ph.D.
Research Project: Analytical Tools for Complex Brain Networks: Fusing Novel Statistical Methods and Network Science to Understand Brain function

EMPLOYMENT

Academic Appointments

Wake Forest University School of Medicine

2022 – Present Assistant Professor, Department of Radiology

2021 – 2022 Faculty Instructor, Department of Radiology

Professional Experience

2011 - 2014 Graduate Research Assistant – University of Tehran, Tehran, Iran

2013 - 2014 Teaching Assistant – University of Tehran, Tehran, Iran

2015 – 2016 Professional Development – Virginia Tech – Wake Forest University School of Biomedical Engineering and Science, Winston-Salem, NC

2015 - 2019 Graduate Research Assistant – Virginia Tech – Wake Forest University School of Biomedical Engineering and Science, Winston-Salem, NC

2017 Clinical Rotation – Virginia Tech – Wake Forest University School of Biomedical Engineering and Science, Carilion Clinic, Roanoke, VA, and Wake Forest Baptist Medical Center, Winston-Salem, NC

2019 - 2021 Research Associate - Laboratory for Complex Brain Networks (LCBN), Wake Forest University School of Medicine, Winston-Salem, NC

ADMINISTRATIVE SERVICE

Departmental Service

2023 Faculty Recruitment for BME Department, Application Review and Interview, Wake Forest University School of Medicine

2024 Faculty Recruitment for Center for Artificial Intelligence, Application Review and Interview, Wake Forest University School of Medicine

Institutional Service

2023 Reviewer for Medical Student Research Program (MSRP) program, Wake Forest University School of Medicine

2024 Poster Presentation Judge, Medical Student Research Day, Wake Forest University School of Medicine

EXTRAMURAL APPOINTMENTS AND SERVICE

Peer Reviewer

Medical Image Analysis
NeuroImage
Human Brain Mapping
Biostatistics
Frontiers
Statistical Analysis and Data Mining
Frontiers in Physics
Brain Connectivity
TNSRE

INNOVATIONS AND COMPUTER SKILLS

Software Development

2018 WFU_MMNET (https://www.nitrc.org/projects/wfu_mmnet).
This software provides a multivariate framework to study how desired phenotypes affect complex topological properties of the brain. ***Several methodological innovations (published in journal articles) are implemented in this software.*** The friendly graphical user interface implemented in this software allows the larger neuroscience community who don't have deep knowledge or expertise in statistics and programming to use the strong implemented models. The main body of this software has been developed in MATLAB, but it automatically uses the strong statistical tools implemented in other languages, such as: SAS, R, and Python, to fit the models.

2023 BGS (https://github.com/berkyalcinkaya/BrainGraphStudio)
I advised my student, Berk Yalcinkaya, on developing this software Toolkit. The GUIs provided by this toolkit allow for using and modifying the state-of-the-art artificial intelligence models for brain networks.

Programming

MATLAB, Advanced
R, Advanced
Python, Advanced
SAS, Intermediate
C, Intermediate
Unix and Shell, Intermediate
SLURM, Basic

Neuroimaging Software

FSL, Advanced
SPM, Advanced
FreeSurfer, Intermediate
MRICRON, Intermediate
CAMINO, Basic

PROFESSIONAL MEMBERSHIPS AND SERVICE

2015 - 2020	Member, Biomedical Engineering Society (BMES) Organization
2016 - 2017	Member, American Statistical Association
2022 - 2023	Member, Obesity

PROFESSIONAL DEVELOPMENT

2023	K&R Writers Series, Clinical and Translational Science Institute, Wake Forest School of Medicine.
2023	Clinical and Translational Science Institute Translational Research

Academy, Wake Forest University School of Medicine.

PROFESSIONAL INTEREST

Medical Imaging and Neuroimaging Data Analysis
Machine Learning and Deep Learning for Biomedical Data
Cerebral Small Disease in the Context of AD/ADRD
Network Neuroscience and Complex Systems
Obesity and Exercise Science
Alcohol and Substance Abuse

HONORS AND AWARDS

2006	Ranked among top 0.5% of more than 434000 participants of BS national entrance exam
2013	1st rank, achieving the highest GPA among Biomedical Engineering graduates Students
2016	Clinical Neuroscience project award for the best grant proposal
2019	Top download paper, 2018 – 2019, in Human Brain Mapping
2021	Award for pilot study from the Translation Science Center of Wake Forest
2023	KL2 award for 2023 – 2025
2023	Best Poster Award, ICFRM 2023
2024	Perfect Score of 10 for K25 Application
2024	K25 award

GRANT FUNDING

Currently Active Grants

K25 AG090707 — 11/15/2024 - 10/30/2029 — 75.00% effort
NIH — $136,778 annual
Cerebral Small Vessel Disease and Dementia: Defining Global Resilience and Dementia in Brain Networks.
This award focuses on developing, using, and deploying advanced statistical and machine learning models to study and quantify the potential impacts of vascular contributions, including cerebral microbleeds, lacunes, and enlarged perivascular spaces to cognitive dysfunction and decline. My KL2 award has laid the foundation for this project.
Principal Investigator: **Mohsen Bahrami**

KL2 TR001421 — 07/01/2023 - 06/30/2025 — 75.00% effort
NIH — $155,000 annual
Cerebral Small Vessel Disease and Brain Networks: Defining Resilience and Global Disruption.
The vascular contributions to cognitive dysfunction and decline are seen as key modifiable risk

factors; however, the mechanisms by which they produce brain lesions that affect brain networks are still unclear. This K25 Award can address this gap while preparing the applicant to lead translational studies in this field.
Principal Investigator: **Mohsen Bahrami**

R01 AG058969 08/15/2018 - 05/31/2029 5.00% effort
NIH / NIAAA $4,759,428 annual
Subclinical Vascular Contributions to Alzheimer's Disease: The Multi Ethnic Study of Atherosclerosis (MESA) Multisite Study of AD
Arterial stiffness increases with age and is emerging as a leading vascular risk factor for Alzheimer's disease (AD) as it has been associated with AD pathology in some studies. Yet, it is unclear if changes in arterial stiffness over time actually explain the increased risk for AD, especially among African-Americans and Hispanics. We propose to review more than 15 years of measurements from the Multi-Ethnic Study of Atherosclerosis (MESA) to determine if arterial stiffness is related to evidence of AD and AD pathology.
Co-Principal Investigators: Timothy Hughes, Kathleen Hayden, Jose Luchsinger
Role: Co-Investigator

P50 AA026117 12/01/2017 - 11/30/2027 2.50% effort
NIH / NIAAA $292,131 annual (Project 1)
Dynamic functional brain network phenotypes associated with vulnerability to hazardous alcohol consumption
This project has the potential to guide the development of future clinical trials to better target clinical outcomes by understanding corresponding mechanisms supporting meditation-related reductions in alcohol craving.
Principal Investigator: Jeffrey Weiner
Project PI: Paul Laurienti
Role: Co-Investigator

R01 AA029926 09/15/2021 - 08/31/2025 2.50% effort
NIH / NIAAA $249,137 annual
CRCNS: Multiplexed Impervious Functional Network Complements Brain Function for Tensioned Stability of Neural Information Processing
We will put forward a new description of brain function that can explain the agile functionality whereby we can dwell on a task, and also divert to other tasks, nimbly and seemingly abruptly depending on input. The complementary tools of correlation analysis and causation entropy (CSE) based information flow analysis gives a computationally valid paradigm whereby we will analyze these elements in the multilayer brain network using fMRI data from human subjects
Co-Principal Investigator: Paul Laurienti and Erik Bollt
Role: Co-Investigator

R01 DA047149 08/01/2023 - 04/30/2024 8.30% effort
NIH/NIDA $400,611 annual
Role of cannabis on HIV-related cognitive impairment: a brain connectomics study
Marijuana, the mostly commonly abused drug among HIV-infected persons, may accelerate the development and progression of neurocognitive impairments. This study applies a connectomics approach to examine how HIV and marijuana interact to disrupt neural networks that underlie cognitive functioning, with implications for the development of improved diagnostics and treatments.
Principal Investigator: Christina S. Meade
Role: Co-Investigator

Pending Grants

R01 04/01/2025 - 03/30/2030 5% effort
NIAA/NIH $ 3,624,664 total
Information processing in the brain: alterations of triple network processing capacity in alcohol use disorder
This project will use a novel measure of information processing, called the fractional processing load (FPL), to assess information processing on a brain network. The overarching objective is to use FPL to compare information processing within brain subnetworks of individuals with alcohol use disorder (AUD) to infrequent drinkers.
Co-Principal Investigator: Paul Laurienti / Erik Bollt
Role: Co-Investigator

R01 07/01/2025 – 06/30/2030
NIMH/NIH $3,826,162
Analytical Tools for Human Connectome Project (HCP) Data
This project will (a) demonstrate the utility of new tools for relating phenotypic traits to brain network organization in HCP data—engendering deeper insights into the complex neurobiological interactions and changes that occur in brain health and disease, and (b) disseminate these tools with corresponding tutorials via the NIMH Data Archive (NDA) cloud environment to enhance rigor and reproducibility.

Past Grant History

K25 EB012236 07/01/2012 - 06/30/2017
NIH / NIDDK
Statistical Methods for Whole-Brain Connectivity Networks
The research activities focused on developing new methodology and modifying existing methods in order to improve whole-brain connectivity analyses of normal and abnormal brain function.
Principal Investigator: Sean Simpson
Role: Graduate Student
Total Grant Amount: $796,146

R01 ES008739 03/01/2013 - 06/30/2018
NIH / NIEHS
The Effect of Pesticide Exposure on Cognitive and Brain Development in Latino Children: PACE5
This proposal was an extension of the work that was performed over the past 20 years (R01ES008739-19) and evaluated the effects of pesticide exposure on neurobehavioral and brain development in children in Latino farmworker families.
Co-Principal Investigator: Paul Laurienti / Thomas Arcury
Role: Graduate Student
Total Grant Amount: $939,391

R01 EB024559 06/15/2018 - 02/28/2022
NIH / NIBIB
Analytical Tools for Complex Brain Networks: Fusing Novel Statistical Methods and Network Science to Understand Brain Function
The project will fuse novel statistical methods with network-based functional neuroimage analysis to engender powerful analytical tools to advance understanding of normal brain function and alterations due to various brain disorders.
Principal Investigator: Sean Simpson
Role: Co-Investigator
Total Grant Amount: $1,534,484

R01 AG051624 05/15/2016 - 04/30/2022
NIH / NIA
The administrative supplement to EMPOWER acquired baseline brain magnetic resonance imaging (MRI) scans on a random subset of n = 90 participants (EMPOWER has a total n = 160). This study will evaluate those images to help determine whether an intervention focused on increasing awareness of sedentary behavior and strategies to reduce sitting will help prevent weight regain following weight loss in obese older adults.
Co-Principal Investigators: Barb Nicklas and W. Jack Rejeski
Supplement PI: Jonathan Burdette, MD
Role: Co-Investigator
Total Grant Amount: $1,534,484

U04449 07/01/2021 - 12/31/2022
WFU Translational Science Institute
Predicting variability in maintaining sedentary behavior intervention among older adults using neuroimaging data and machine learning techniques
This project will obtain brain phenotypes and identify brain circuits from functional MRI brain data associated with a weight-loss and sedentary behavior intervention.
Principal Investigator: **Mohsen Bahrami** / Jason Fanning
Total Grant Amount: $18,913

BIBLIOGRAPHY

Peer-Reviewed Publications

1. **Bahrami M,** Laurienti PJ, Quandt SA, Talton J, Pope CN, Summers P, Burdette JH, Chen HY, Liu J, Howard TD, Arcury TA, Simpson SL (2017).“The Impacts of Pesticide and Nicotine Exposures on Functional Brain Networks in Latino Immigrant Workers.” *Neurotoxicology*.62:138-150.

2. **Bahrami M,** Lyday RG, Casanova R, Burdette JH, Simpson SL, Laurienti PJ (2019). “Using Low Dimensional Manifolds to Map Relationships Between Dynamic Brain Networks.” *Frontiers in Human Neuroscience*, 13: p.430.

3. **Bahrami M,** Laurienti PJ, Simpson SL (2019). “Analysis of Brain Subnetworks within the Context of their Whole-Brain Networks.” *Hum Brain Mapp*. 40(17): 5123-5141.doi:10.1002/hbm.24762.

4. **Bahrami M,** Laurienti PJ, Simpson SL (2019). “A MATLAB Toolbox for Multivariate Analyses of Brain Networks.” *Hum Brain Mapp*. 40(1):175-186. doi: 10.1002/hbm.24363.

5. Simpson SL, **Bahrami M,** Laurienti PJ (2019). “A Mixed Modeling Framework for Analyzing Multitask Whole Brain Network Data.” *Network Neuroscience*. 3(2):307-324. doi: 10.1162/netn_a_00065.

6. Burdette JH, Laurienti PJ, Miron LL, **Bahrami M,** Simpson SL, Nicklas BJ, Fanning J, Rejeski JW (2020). “Functional Brain Networks: Unique Patterns with Hedonic Appetite and Confidence to Resisting Eating in Older Adults with Obesity.” *Obesity*, 28 (12): p.2379-2388.

7. Casanova R, Lyday RG, **Bahrami M,** Burdette JH, Simpson SL, Laurienti PJ (2021). “Embedding Functional Brain Networks in Low Dimensional spaces Using Manifolds Learning Techniques.” *Frontiers Neuroinformatics*, 15: 740143.

8. Peterson H, Mayhugh R, **Bahrami M**, Rejeski JW, Simpson SL, Heilman K, Porges SW, Laurienti PJ (2021). “Influence of Heart Rate Variability on Abstinence-Related Changes in Brain State in Everyday Drinkers.” *Brain Sci*. 11(6):817.

9. Burdette JH, **Bahrami M,** Laurienti PJ, Simpson SL, Nicklas BJ, Fanning J, Rejeski JW (2022). "Longitudinal Relationship of Baseline Functional Brain Networks with Intentional Weight Loss in Older Adults." *Obesity.* **30**(4): p. 902-910.

10. **Bahrami M,** Laurienti PJ, Shappell HM, Dagenbach D, Simpson SL (2022). "A Mixed-Modeling Framework for Whole-Brain Dynamic Network Analysis." *Network Neuroscience*. 1-52.

11. **Bahrami M,** Simpson SL, Burdette JH, Lyday RL, Quandt SA, Chen HY, Arcury TA, Laurienti PJ (2022). "Altered Default Mode Network Associated with Pesticide Exposure in Latinx Children from Rural Farmworker Families." *NeuroImage*, **256**: 119179.

12. **Bahrami M,** Laurienti PJ, Shappell HM, Simpson SL (2022). "Brain Network Analysis: A Review on Multivariate Analytical Tools." *Brian connectivity*, 1-16.

13. Rejeski JW, Laurienti PJ, **Bahrami M,** Fanning J, Simpson SL, Burdette JH (2022). "Aging and Neural Vulnerabilities in Overeating: A Conceptual Overview and Model to Guide Treatment." *Psychiatry and Clinical Neurosciences Report, 1(3):* 1-12.

14. Kirse HA, **Bahrami M**, Lyday RG, Simpson SL, Peterson-Sockwell H, Burdette JH, Laurienti PJ (2023). "Differences in Brain Network Topology Based on Alcohol Use History in Adolescents." *Brain Sci*. 5;13(12):1676.

15. **Bahramim, M**. Burdette, J.H., Laurienti, P. J., Nicklas, B.J, Rejeski, P.J., Fanning, J. (2024). "Neural Determinants of Sedentary Behavior in Older Adults: A Brain Network Analysis." Brain and Behavior, **DOI:** 10.1002/brb3.70085, In Production.

16. Simpson, S. L., Shappell, H. M., **Bahrami, M**. (2024). "Statistical Brain Network Analysis". *Annual Review of Statistics and Its Application*, *11*.

17. McIntyre, C. C., **Bahrami, M**., Shappell, H. M., Lyday, R. G., Fish, J., Bollt, E. M., & Laurienti, P. J. (2024). "Contrasting topologies of synchronous and asynchronous functional brain networks." *Network Neuroscience*, 1-16.

18. Shappell, H.M., Rejeski P.J., Khodaei, M., Lyday R.G., **Bahrami, M**., Nicklas, B.J., Fanning, J., Burdette, J.H., Laurienti P.J. (2024). "Brain network dynamics associated with intentional weight loss in older adults." Aperture Neuro, In Revision.

19. **Bahrami, M**., Laurienti, P.J., Bell, R. P., Towe, S.L., Shappell, H.M., Meade, C. S. (2024). "Neural compensation in Persons with HIV and marijuana use: Insights from a reorganized Default Mode Network." Network Neuroscience, Under Review.

20. Lavigne, S. L., Burdette, J.H., **Bahrami M.**, Laurienti, P.J., Lyday, R.G., Thaut, M.H. (2024). "Altered Basal Ganglia Network Topology Associated with Auditory-Motor Synchronization." Human Brain Mapping. Under Review.

Peer-Reviewed Extended Abstracts in Conference Proceedings (Published)

1. **Bahrami M**, Hossein-Zadeh GA (2014). "Functional Parcellation Affect Network Measures in Graph Analysis of Resting-State fMRI." 21st Iranian Conference on Biomedical Engineering (ICBME). Tehran, Iran. Publisher: IEEE. Pages:263-268. doi: 10.1109/ICBME.2014.7043933.

2. Yousefi H, **Bahrami M**, Fatehi M, Zoroofi RA (2014). "3D Statistical Shape Models of Radius Bone for Segmentation in Multi Resolution MRI Data Sets." 21st Iranian Conference on Biomedical Engineering (ICBME). Tehran, Iran. Publisher: IEEE. Pages:246-251. doi: 10.1109/ICBME.2014.7043930.

3. **Bahrami M**, Hossein-Zadeh GA (2015). "Assortativity Changes in Alzheimer's Disease: A RestingState fMRI Study." IEEE 23rd Iranian Conference on Electrical Engineering (ICEE). Tehran, Iran. Publisher: IEEE. Pages:141-144. doi: 10.1109/IranianCEE.2015.7146198.

PRESENTATIONS AT PROFESSIONAL MEETINGS

1. **Bahrami M,** Hossein-Zadeh GA. "On the Robustness of Copula-Based Measures of Connectivity Analysis for Resting-State fMRI Data Analysis." *5th Iranian Conference on Bioinformatics (ICB 2014).* Tehran, Iran. Spring 2014.

2. **Bahrami M,** Borjkhani M, Hossein-Zadeh GA, Bahrami F. "Lyapunove Exponent as a Feature to Distinguish Patients with Alzheimer's Disease and Healthy Controls Using Resting-State fMRI BOLD Signals." *1st Iranian Conference on Human Brain Mapping.* Tehran, Iran. Fall 2014.

3. **Bahrami M,** Hossein-Zadeh GA. "A Comparison Between Statistical characteristics of a Copula Based Measure and Cross-Correlation in Resting-State fMRI Connectivity Analysis." *1st Iranian Conference on Human Brain Mapping.* Tehran, Iran. Fall 2014.

4. **Bahrami M,** Laurienti PJ, Sandberg JC, Daniel SS, Arcury TA, Simpson SL. "The Impact of Pesticide on Latino Farmworkers' Functional Brain Networks." *NIEHS Environmental Health Science FEST.* Research Triangle Park NC, USA. December 2016.

5. **Bahrami M,** Laurienti PJ, Arcury TA, Simpson SL. "The Impacts of Pesticide and Nicotine on Functional Brain Networks in Latino Farmworkers." *North Carolina Cognition Group Conference.* Greensboro, NC, USA. March 2017.

6. **Bahrami M,** Laurienti PJ, Arcury TA, Simpson SL. "Brain Networks in Latino Farmworkers with Chronic Exposures to Pesticides." *BMES Annual Meeting.* Phoenix, AZ, USA. October 2017.

7. **Bahrami M,** Laurienti PJ, Simpson SL. "A Matlab Toolbox for Multivariate Analysis of Brain Networks." *Statistical Methods in Imaging.* Philadelphia, PA, USA. May 2018.

8. Mayhugh R, Rejeski WJ, **Bahrami M**, Simpson SL, Heilman K, Porges S, Gauvin L, Laurienti PJ. ""A MATLAB Toolbox for Multivariate Analysis of Brain Networks." *41st Annual Scientific Meeting of the Research Society on Alcoholism.* San Diego, CA, USA. June 2018.

9. **Bahrami M,** Laurienti PJ, Simpson SL. "A Matlab Toolbox for Multivariate Analysis of Brain Networks." *BMES Annual Meeting.* Atlanta, GA, USA. October 2018.

10. **Bahrami M,** Laurienti PJ, Simpson SL. "Analyzing Local Subnetworks: Context is Everything." *NetSci.* Burlington, VT, USA. May 2019.

11. Peterson H, Mayhugh R, Rejeski JW, **Bahrami M,** Simpson SL, Heilman K, Porges SW, Laurienti PJ. "Relationship between Cardiac Vagal Tone and Functional Brain Connectivity in Moderate to Heavy Alcohol Consumers." *NetSci.* Burlington, VT, USA. May 2019.

12. Peterson H, **Bahrami M**, Simpson SL, Rejeski WJ, Laurienti PJ. "Differential Functional Brain Network Topology During Periods Of Normal Drinking and Abstinence in Moderate to Heavy Alcohol Consumers." *43rd Annual Scientific Meeting of the Research Society on Alcoholism.* Virtual Meeting. June 2020.

INVITED EXTRAMURAL PRESENTATIONS AND SEMINARS

1. **Bahrami M**, Simpson SL, Arcury TA, Laurienti PJ. "A Mixed-Effects Modeling Approach to Study the Impacts of Pesticides on Farmworkers' Brain Networks Using RSFMRI Data." Joint Statistical Meetings. Chicago, IL. August 2016. (Invited Presentation)

2. **Bahrami M**, Burdette JH, Laurienti PJ, Nicklas B, Hughes T, Rejeski WJ, Fanning J. "Neural Signatures of Sedentary Behavior in Older Adults - A Machine Learning Study." 2023 Fall CTSA Program Annual Meeting. Washington DC, USA. November 2023. (Invited Presentation)

DIDACTIC/SYSTEMATIC INSTRUCTION

Wake Forest University School of Medicine 2023
Course Developer, BMES 619 (3.0 hr)

Wake Forest University School of Medicine 2023 - present
Course Director, BMES 619 (3.0 hr)

Wake Forest University School of Medicine 2023
Course Instructor, NEUR 725 (3.0 hr)

Wake Forest University School of Medicine 2023
Course Proctor, BMES 697 (3.0 hr)

University of Tehran, Department of Electrical and computer Engineering 2013 - 2014
Teaching Assistant, Pattern Recognition
Graduate Course

University of Tehran, Department of Electrical and computer Engineering 2013
Teaching Assistant, Functional Medical Imaging Systems
Graduate Course

MENTORING

Current Mentees

Clayton McIntyre PhD Student 2023 - present
Neuroscience Graduate Program at Wake Forest University School of Medicine. Dr. Bahrami is a dissertation committee member for Clayton. His project is focused on using multivariate and prediction models to study the impacts of alcohol on brain networks.

Haley Kirse PhD Student 2023 - present
Integrative Physiology and Pharmacology Graduate Program at Wake Forest University School of Medicine. Dr. Bahrami is a dissertation committee member for Haley. Her project is focused on using a combination of fMRI and TMS to develop individual-based interventional strategies to treat individuals with heavy alcohol consumption.

Robert Bennett PhD Student 2023 – present
Biomedical Engineering Graduate Program at Wake Forest University School of Medicine. Dr.

Bahrami is a dissertation committee member for Robert. His project is focused on the application of machine learning/deep learning for multi-omic analysis, and their potential for preventative and interventions/therapies that can extend healthy human lifespan.

Benjamin Maas PhD Student 2023 – present
Biomedical Engineering Graduate Program at Wake Forest University School of Medicine. Dr. Bahrami is a dissertation committee member for Robert. His project is focused on using neuroimaging data, including fMRI and DTI, to identify neural circuits associated with depression.

Seha Ay PhD Student 2024 – present
Biomedical Engineering Graduate Program at Wake Forest University School of Medicine. Dr. Bahrami is a dissertation committee member for Robert. His project is focused on using innovative algorithms for privacy preservation and bias mitigation in medical artificial intelligence applications.

Samantha Gorlewski MS Student 2023 – 2024
Biomedical Engineering Graduate Program at Wake Forest University School of Medicine. Dr. Bahrami is a dissertation committee member for Robert. Her project was focused on using novel physics-informed neural network frameworks to model lesion growth for distinguishing tumor recurrence from radiation necrtosis.