# Javid Dadashkarimi

Computer Science, PhD


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## About me

I'm Javid Dadashkarimi PhD candidate in computer science department at Yale University. I'm so grateful to work with Dustin Scheinost and Amin Karbasi in my PhD. Currently, I am interested in finding a mechanism to transfer human brain images between two locations. Theoretically, I am using optimal transport to find out a transportation plan between fMRI images derived from different atlases (Yale, Oxford, Schaefer, Dosenbach, etc | kids vs adults). In addition, I am investigating why statistical methods outperform neural networks in functional MRI and trying to design graph neural network and variational AutoEncoders that don't collapse in such high dimensional data.

## Skills

Python | Pytorch | Pyro

Node JS

C++

R

SQL

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

## Interests

Optimization, Machine Learning, Natural Language Processing, and Brain Imaging

## Education

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| 2017-2023 | Yale University<br>Computer Science | PhD |
| 2012-2015 | University of Tehran<br>Software Engineering | MSc |
| 2008-2012 | University of Tehran<br>Electrical and Software Engineering | BSc |

## Teaching Fellow

| | |
|---|---|
| 2021 | Introduction to Machine Learning, Andre Wibisono |
| 2020 | Stochastic Process, Amin Karbasi |
| 2020 | Neural Networks & Learning Systems, Priyadarshini Panda |
| 2015-2017 | Information Retrieval, Azadeh Shakery |

## Projects

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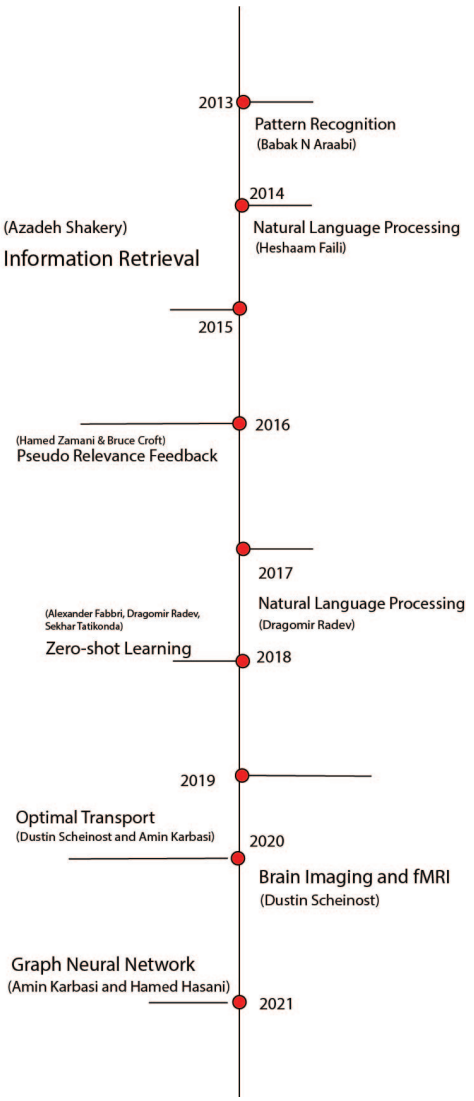
| 2020 | iid.yale.edu: A bibliography platform and online reference for research groups @ Yale University [Publications\| Research Areas \| News \| Teaching] (Hugo) |
| 2018- | BioImageSuit Web: An integrated image analysis software suite (JavaScript). |

## Publications

1. Javid Dadashkarimi, Amin Karbasi, Dustin Scheinost, *Data-driven mapping between functional connectomes using optimal transport*, MICCAI, 2021 AR ~ 29% brain imaging
2. Dustin Scheinost, Javid Dadashkarimi, Emily S. Finn, Caroline G. Wambach, Caroline MacGillivray, Alexandra L. Roule, Tara A. Niendam, Daniel S. Pine, Melissa A. Brotman, Ellen Leibenluft Wan-Ling Tseng, *Functional Connectivity During Frustration: Predictive Modeling of Irritability in Youth*, Neuropsychopharmacology,nature, 2021 IF=7.8 brain imaging
3. Corey Horien, Stephanie Noble, Abigail S Greene, Kangjoo Lee, Daniel S Barron, Siyuan Gao, David O'Connor, Mehraveh Salehi, Javid Dadashkarimi, Xilin Shen, Evelyn MR Lake, R Todd Constable, Dustin Scheinost, *A hitchhiker's guide to working with large, open-source neuroimaging datasets*, Nature Human Behaviour, nature, 2021 IF=12.28 brain imaging
4. Daniel S Barron, Siyuan Gao, Javid Dadashkarimi, Abigail S Greene, Marisa Spann, Stephanie Noble, Evelyn Lake, John H Krystal, R Todd Constable, Dustin Scheinost, *Transdiagnostic, Connectome-Based Prediction of Memory Constructs Across Psychiatric Disorders*, Cerebral Cortex, 2021 IF=5.0 brain imaging
5. Shayan Aliakbar Tabrizi, Azadeh Shakery, Mohammadali Tavallaei , and Javid Dadashkarimi. METHOD AND SYSTEM FOR INFORMATION RETRIEVAL, United States Patent 20170344663, 2020 US Patent
6. Erin Yeagle, Javid Dadashkarimi, Vivian Duan, Abigail Greene, Daniel Barron, Siyuan Gao, Dustin Scheinost, *Predicting BMI From Whole-Brain Functional Connectivity, Poster Report: Biological Psychiatry* 2020, IF=12.1 brain imaging
7. Javid Dadashkarimi, Siyuan Gao, Erin Yeagle, Stephanie Noble, and Dustin Scheinost A Mass Multivariate Edge-wise Approach for Combining Multiple Connectomes to Improve the Detection of Group Differences, Connectomics in NeuroImaging, MICCAI 2019 ,Shenzhen, China . Best Poster brain imaging
8. Javid Dadashkarimi, Alexander Fabbri, Sekhar Tatikonda, and Dragomir Radev. Zero Shot Transfer Learning for Logic Sequence Modeling,arXiv, 2018




9. Javid Dadashkarimi, Mahsa S. Shahshahani, Amirhossein Tebbifakhr, Heshaam Faili, Azadeh Shakery. *Dimension Projection among Languages based on Pseudo-relevant Documents for Query Translation*, ECIR, Scotland UK, 2017 AR ~ 28%
10. Javid Dadashkarimi, Azadeh Shakery, Heshaam Faili, and Hamed Zamani. *EM4QT: An Expectation-Maximization Algorithm for Improving Query Translation Quality*, IP&M, Elsevier, 2016 IF=6.2
11. Hamed Zamani, Javid Dadashkarimi, Azadeh Shakery,and Bruce Croft.Pseudo-Relevance Feedback Based on Matrix Factorization, CIKM ,Indianapolis, USA, 2016 AR ~ 23%
12. Javid Dadashkarimi, Masoud Jalili Sabet, and Azadeh Shakery, *Learning to Weight Translations using Ordinal Linear Regression and Query-generated Training Data for Ad-hoc Retrieval with Long Queries*, COLING ,Osaka, Japan, 2016 AR ~ 28%
13. Hossein Nasr Esfahani, Javid Dadashkarimi, and Azadeh Shakery. *Profile-based Translation in Multilingual Expertise Retrieval*. MultiLingMine Workshop, ECIR , Padua (Italy), March 20-23, 2016
14. Razieh Rahimi, Azadeh Shakery, Javid Dadashkarimi, Mozhdeh Ariannezhad, Mostafa Dehghani, and Hossein Nasr Esfahani. *Building a Multi-Domain Comparable Corpus Using a Learning to Rank Method*, Natural Language Engineering, Cambridge University Press, 2016 IF~1.1
15. Javid Dadashkarimi, Hossein Nasr Esfahani ,Heshaam Faili, and and Azadeh Shakery. *SS4MCT: A Statistical Stemmer for Morphologically Complex Texts*. Conference and Labs of the Evaluation Forum (CLEF) , Evora, Portugal, September 5-8, 2016
16. Shayan A. Tabrizi, Javid Dadashkarimi, Mostafa Dehghani, Hassan Nasr Esfahani, and Azadeh Shakery. *Revisiting Optimal Rank Aggregation: A Dynamic Programming Approach. International Conference on the Theory of Information Retrieval*, (ICTIR) , Massachusetts (USA), September 27-30, 2015
17. Javid Dadashkarimi and Azadeh Shakery, and Heshaam Faili. *A Probabilistic Translation Method for Dictionary-based Cross-lingual Information Retrieval in Agglutinative Languages*. In 3rd International Conference of Computational Linguistic, Tehran, Iran, arXiv,2014

## Awards

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| 2020 | Brain Initiative Trainee Award, BRAIN Initiative Investigators Meeting 2020. |
| 2019 | Best Poster Award in International Workshop on Connectomics in Neuroimaging, MICCAI 2019. |
| 2012 | Ranked 5st among all B. Sc. Software Engineering students, University of Tehran, 2008-2012 |
| 2008 | Ranked 331st among 250,000 students in the Iranian (nationwide) Mathematics and Physics university entrance exam, 2008. |

## Reviewer

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| 2021 | NeurIPS, ICLR |
| 2020 | ICML, NeuroImage Journal |

## Other information

I am so grateful to had chance to mentor undergraduate and high school students during summer: Mozhdeh Aryannezhad, Vivian Duan, Richard Wang, Nikhil Trepeta, and Caitlin Westerfield. I follow tennis and soccer and also paint (pen/oil) and in my spare time I design academic figures in Adobe.