Mert R. Sabuncu

Professor
School of Electrical and Computer Engineering
Cornell University and Cornell Tech

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EDUCATION

Post-doc   **Massachusetts Institute of Technology**
Cambridge, MA   August 2006-October 2009
Computer Science and Artificial Intelligence Lab
Advisor: Polina Golland

PhD   **Princeton University**
Princeton, NJ   September 2001–July 2006
Electrical Engineering
Thesis Advisor: Peter J. Ramadge
Concentration: Information Sciences and Systems

BSc   **Middle East Technical University**
Ankara, Turkey   September 1997–June 2001
Electrical and Electronics Engineering

ACADEMIC APPOINTMENTS

- **Professor (with tenure)**   January 2023-present
  School of Electrical and Computer Engineering
  Cornell University and Cornell Tech

  Secondary appointment in Department of Radiology
  Weill Cornell Medicine

- **Associate Professor (with tenure)**   July 2021-December 2022
  School of Electrical and Computer Engineering
  Cornell University and Cornell Tech

  Secondary appointment in Department of Radiology
  Weill Cornell Medicine

- **Associate Professor (with tenure)**   November 2020-June 2021
  School of Electrical and Computer Engineering
  Cornell University

- **Assistant Professor**   July 2017-October 2020
  School of Electrical and Computer Engineering
  Meinig School of Biomedical Engineering
  Cornell University

- **Visiting Assistant Professor**   July 2016-June 2017
  School of Electrical and Computer Engineering
  Cornell University

- **Assistant Professor**   March 2012-June 2017
  A.A. Martinos Center for Biomedical Imaging
  Department of Radiology, Mass. General Hospital and Harvard Medical School

- **Instructor, Research Faculty** November 2009-March 2012
  A.A. Martinos Center for Biomedical Imaging
  Department of Radiology, Mass. General Hospital/Harvard Medical School

- **Associated Scientist** December 2015- June 2017
  Broad Institute of Harvard and MIT

- **Research Affiliate** November 2009- June 2017
  CSAIL, Massachusetts Institute of Technology

- **Post-doctoral Associate** August 2006-October 2009
  CSAIL, Massachusetts Institute of Technology

- **Graduate Research Assistant** June 2002-July 2006
  Princeton University, Princeton, NJ

HONORS AND AWARDS

- Cornell Engineering Michael Tien '72 Sustained Excellence and Innovation in Engineering Education Award, 2021

- Winner of MICCAI 2021 Young Scientist Award. Co-authored paper

- Cornell Engineering Research Excellence Award, 2019

- NSF CAREER Award, 2018

- NIH CAREER DEVELOPMENT Award (K25), 2011

- Winner of Young Investigator Publication Impact Award at MICCAI'11. Co-authored paper

- Winner of MICCAI 2007 Young Scientist Award. Co-authored paper

- Outstanding Teaching Assistant Award, Department of Electrical Engineering, Princeton University, Princeton, NJ. 2006

- Bulent Kerim Altay Award, given by the Electrical and Electronics Engineering Department at Middle East Technical University to the student who, based on semester grades, ranks first in his/her class. Fall 1997 and 1999; Spring 1998, 1999 and 2000

- Ranked 90th in Turkey's nationwide university entrance exam among approximately 1.5 million candidates, 1997

TEACHING EXPERIENCE

AT CORNELL

- ECE 5415 Applied Digital Signal Processing and Communications Fall 2021, 2022
- ECE 4250 Digital Signal and Image Processing Spring 2018, 2019, 2020, 2021
- ECE 5970/BME 5310 Machine Learning with Biomedical Data Fall 2017, 2018, 2020

PRIOR TO CORNELL

- **Lecturer at Mini Courses**

  - 3rd Biomedical Image Analysis Summer School: Modalities, Methodologies & Clinical Research, Center of Visual Computing of INRIA; July 2015
  - Advanced Imaging in Clinical/Translational Neuroscience Research, Harvard Catalyst Course; May 2015

- FreeSurfer Course, Martinos Center of MGH; 2010, 2011, 2012
- **Visiting Professor**
    - EE58M Modeling and Inference in Biomedical Image Analysis, Electrical Engineering Department, Bogazici University, Istanbul, Turkey; July-August 2012
- **Guest Lecturer**
Massachusetts Institute of Technology, Cambridge, MA
    - HST.583 Functional Magnetic Resonance Imaging   Fall 2008, 2010, 2012, 2015
    - 6.034 Artificial Intelligence   Spring 2008
- **Teaching Assistant**
Princeton University, Princeton, NJ
    - ELE 488 Image Processing and Transmission   Fall 2003, Fall 2004, Fall 2005
    [Received the 2006 *Outstanding Teaching Assistant Award* from the EE Department.]
    - ELE 391 The Wireless Revolution   Spring 2005
    - ELE 201 Introduction to Electrical Signals and Systems   Fall 2002

OTHER PROFESSIONAL ACTIVITIES

- **Chief Technology Advisor**   June 2017-present
Cleerly Med, Inc, New York, NY

- **Intern/Research Staff**   June 2003-June 2006
Siemens Corporate Research, Princeton, NJ

- **Undergraduate Intern**   August 2000
Tubitak-Bilten (The Scientific and Research Council of Turkey)

- **Undergraduate Intern**   June-July 1999
Vestel Electronics, Inc., Manisa, Turkey

MEMBERSHIPS

- Member of MICCAI Society
- Member of IEEE Society
- Member of Cornell ECE, BME, Computer Science Graduate Fields
- Minor Member of Cornell Physics Graduate Field

PUBLICATIONS

Google Scholar Profile:
http://scholar.google.com/citations?user=Pig-I4QAAAAJ&hl=en

NCBI Bibliography:
http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/42348358/?sort=date&direction=descending

JOURNAL PUBLICATIONS

J1.   "Pulse Sequence Dependence of a Simple and Interpretable Deep Learning Method for Detection of Clinically Significant Prostate Cancer Using Multiparametric MRI. " H Kim, DJ Margolis, H Nagar, and MR Sabuncu. *Academic Radiology*. 2022.

J2.   "A transformer-based neural language model that synthesizes brain activation maps from free-form text queries." GH Ngo, M Nguyen, NF Chen, and <u>MR Sabuncu</u>. *Medical Image Analysis*, *81*, p.102540. 2022.

J3.   "Predicting individual task contrasts from resting-state functional connectivity using a surface-based convolutional network." G Ngo, M Khosla, K Jamison, A Kuceyeski, and <u>MR Sabuncu.</u> *NeuroImage* 248, 2022.

J4.   "NeuroGen: activation optimized image synthesis for discovery neuroscience." Z Gu, K Jamison, M Khosla, EJ Allen, Y Wu, T Naselaris, K Kay, <u>MR Sabuncu</u>, and A Kuceyeski. *NeuroImage* 247, 2022.

J5.   "Heritability and interindividual variability of regional structure-function coupling" Z Gu, KW Jamison, <u>MR Sabuncu</u>, and A Kuceyeski. *Nature Communications* 12, no. 1, 2021.

J6.   "Magnetic Resonance Imaging Radiomics-Based Machine Learning Prediction of Clinically Significant Prostate Cancer in Equivocal PI-RADS 3 Lesions." S Hectors, C Chen, J Chen, J Wang, S Gordon, M Yu, B Al Hussein Al Awamlh, <u>MR Sabuncu</u>, DJA Margolis, and JC Hu. *Journal of Magnetic Resonance Imaging* 54, no. 5, 2021.

J7.   "Deep learning-driven catheter tracking from bi-plane X-ray fluoroscopy of 3D printed heart phantoms." M Torabinia, A Caprio, S-J Jang, T Ma, H Tran, L Mekki, I Chen, <u>MR Sabuncu</u>, SC Wong, and B Mosadegh. *Mini-invasive Surgery* 5, 2021.

J8.   "Cortical response to naturalistic stimuli is largely predictable with deep neural networks." M Khosla, GH Ngo, KW Jamison, A Kuceyeski, and <u>MR Sabuncu</u>. *Science Advances* 7, no. 22, 2021.

J9.   "Heritability of individualized cortical network topography." KM Anderson, T Ge, R Kong, LM Patrick, RN Spreng, <u>MR Sabuncu</u>, BTT Yeo, and AJ Holmes. *Proceedings of the National Academy of Sciences* 118, no. 9, 2021.

J10.   "Deep-learning-based Optimization of the Under-sampling Pattern in MRI." CD Bahadir, AQ Wang, AV Dalca, and <u>MR Sabuncu</u>. *IEEE Transactions on Computational Imaging*, *6*, pp.1139-1152. 2020.

J11.   "Machine Learning Prediction of Stroke Mechanism in Embolic Strokes of Undetermined Source." H Kamel, BB Navi, NS Parikh, AE Merkler, PM Okin, RB Devereux, JW Weinsaft, J Kim, JW Cheung, LK Kim, B Casadei, C Iadecola, <u>MR Sabuncu,</u> A Gupta, and I Diaz. *Stroke*, 51(9), pp.e203-e210, 2020.

J12.   "Fidelity Imposed Network Edit (FINE) for Solving Ill-Posed Image Reconstruction." J Zhang, L Zhe, S Zhang, H Zhang, P Spincemaille, TD Nguyen, <u>MR Sabuncu</u>, and Yi Wang. *NeuroImage,* 211, p.116579. 2020.

J13.   "Sex classification using long-range temporal dependence of resting-state functional MRI time series." E Dhamala, KW Jamison, <u>MR Sabuncu</u>, and A Kuceyeski. *Human brain mapping*, 41(13), pp.3567-3579, 2020.

J14.   "Machine Learning Methods Predict Individual Upper-Limb Motor Impairment Following Therapy in Chronic Stroke." C Tozlu, D Edwards, A Boes, D Labar, KZ Tsagaris, J Silverstein, H Pepper Lane, <u>MR Sabuncu</u>, C Liu, and A Kuceyeski, A. *Neurorehabilitation and neural repair*, 2020.

J15.   "Unsupervised Learning of Probabilistic Diffeomorphic Registration for Images and Surfaces." AV Dalca, G Balakrishnan, J Guttag, and <u>MR Sabuncu</u>. *Medical Image Analysis,* vol. 57, 2019.

J16. "Machine learning in resting-state fMRI analysis." M Khosla, K Jamison, GH Ngo, A Kuceyeski, and MR Sabuncu. *Magnetic Resonance Imaging,* vol. 64, 2019.

J17. "A two-dimensional feasibility study of deep learning-based feature detection and characterization directly from CT sinograms." Q De Man, E Haneda, B Claus, P Fitzgerald, B De Man, G Qian, H Shan, J Min, MR Sabuncu, and G Wang. *Medical Physics*, *46*(12), 2019.

J18. "Deep neural networks and kernel regression achieve comparable accuracies for functional connectivity prediction of behavior and demographics." T He, R Kong, AJ Holmes, M Nguyen, MR Sabuncu, SB Eickhoff, D Bzdok, J Feng, and BTT Yeo. *NeuroImage,* vol 206, 2020.

J19. "Ensemble Learning with 3D Convolutional Neural Networks for Classification of Functional Connectomes." M Khosla, K Jamison, A Kuceyeski, and MR Sabuncu. *NeuroImage,* vol. 199, p. 651-662, 2019.

J20. "Machine Learning Enables High-Throughput Phenotyping for Analyses of the Genetic Architecture of Bulliform Cell Patterning in Maize." P Qiao, M Lin, M Vasquez, S Matschi, J Chamness, M Baseggio, LG Smith, MR Sabuncu, MA Gore, and MJ Scanlon. *G3: Genes, Genomes, Genetics* 9, no. 12, 2019.

J21. "Global signal regression strengthens association between resting-state functional connectivity and behavior." J Li, R Kong, R Liegeois, C Orban, Y Tan, N Sun, AJ Holmes, MR Sabuncu, T Ge, and BTT Yeo, *NeuroImage*, vol. 196*,* 2019.

J22. "VoxelMorph: A Learning Framework for Deformable Medical Image Registration." G Balakrishnan, A Zhao, MR Sabuncu, J Guttag, and AV Dalca, *IEEE Transactions on Medical Imaging,* 38(8), 2019.

J23. "Multi-modal latent factor exploration of atrophy, cognitive and tau heterogeneity in Alzheimer's disease." N Sun, EC Mormino, J Chen, MR Sabuncu, and BTT Yeo. *NeuroImage*, vol. 201, 2019.

J24. "Resting brain dynamics at different timescales capture distinct aspects of human behavior." R Liégeois, J Li, R Kong, C Orban, D Van De Ville, T Ge, MR Sabuncu, and BTT Yeo. *Nature Communications,* 10(1), 2019.

J25. "Machine Learning Enables High-Throughput Phenotyping for Analyses of the Genetic Architecture of Bulliform Cell Patterning in Maize." P Qiao, M Lin, M Vasquez, S Matschi, J Chamness, M Baseggio, LG Smith, MR Sabuncu, MA Gore, and MJ Scanlon. *G3: Genes, Genomes, Genetics*, pp.g3-400757, 2019.

J26. "Deep convolutional neural networks for segmenting 3D in vivo multiphoton images of vasculature in Alzheimer disease mouse models." M Haft-Javaherian, L Fang, V Muse, CB Schaffer, N Nishimuraa, and MR Sabuncu. *Plos ONE,* 2019.

J27. "Subspecialization within default mode nodes characterized in 10,000 UK Biobank participants." JM Kernbach, BTT Yeo, J Smallwood, DS Margulies, M Thiebaut de Schotten, H Walter, MR Sabuncu, AJ Holmes, A Gramfort, G Varoquaux, B Thirion, and D Bzdok. *Proceedings of the National Academy of Sciences,* 2018.

J28. "Medical Image Imputation from Image Collections." A Dalca, KL Bouman, WT Freeman, NS Rost, MR Sabuncu, and P Golland. *IEEE Transactions on Medical Imaging*. 2018.

J29. "The Shared Genetic Basis of Educational Attainment and Cerebral Cortical Morphology." T Ge, C-Y Chen, AE Doyle, R Vettermann, LJ Tuominen, DJ Holt, MR Sabuncu, and JW Smoller. "" *Cerebral Cortex*, 2018.

J30.   "Spatial Topography of Individual-Specific Cortical Networks Predicts Human Cognition, Personality, and Emotion." R Kong, J Li, C Orban, MR Sabuncu, H Liu, A Schaefer, N Sun, XN Zuo, AJ Holmes, SB Eickhoff, and BTT Yeo. *Cerebral Cortex*. 2018.

J31.   "The human cortex possesses a reconfigurable dynamic network architecture that is disrupted in psychosis." JM Reinen, OY Chén, RM Hutchison, BTT Yeo, KM Anderson, MR Sabuncu, D Öngür, JL Roffman, JW Smoller, JT Baker, and AJ Holmes. *Nature Communications*, 9(1), p.1157,2018.

J32.   "Heritability analysis with repeat measurements and its application to resting-state functional connectivity." T Ge, AJ Holmes, RL Buckner, JW Smoller*, and MR Sabuncu*. *Proceedings of the National Academy of Sciences*, vol. 114, no. 21, 2017.

J33.   "Reply to Risk and Zhu: Mixed-effects modeling as a principled approach to heritability analysis with repeat measurements." T Ge, AJ Holmes, RL Buckner, JW Smoller, and MR Sabuncu. *Proceedings of the National Academy of Sciences*, 115(2), pp.E123-E123. 2018.

J34.   "Phenome-wide heritability analysis of the UK Biobank." T Ge, CY Chen, BM Neale, MR Sabuncu*, and JW Smoller*. *PLoS Genetics*, vol 13, no. 4, 2017.

J35.   "Tau and amyloid-β proteins distinctively associate to functional network changes in the aging brain." J Sepulcre, MR Sabuncu, Q Li, G El Fakhri, R Sperling, KA Johnson. *Alzheimer's & Dementia* 13, no. 11: 1261-1269, 2017.

J36.   "Dissociable influences of APOE ε4 and polygenic risk of AD dementia on amyloid and cognition." T Ge, MR Sabuncu, JW Smoller, RA Sperling, and EC Mormino. *Neurology*, pp.10-1212, 2018.

J37.   "Hierarchical organization of tau and amyloid deposits in the cerebral cortex." J Sepulcre, MJ Grothe, MR Sabuncu, J Chhatwal, AP Schultz, B Hanseeuw, G El Fakhri, R Sperling, and KA Johnson. *JAMA Neurology* 74.7 (2017): 813-820.

J38.   "Joint Analysis of Cortical Area and Thickness as a Replacement for the Analysis of the Volume of the Cerebral Cortex." AM Winkler, DN Greve, KJ Bjuland, TE Nichols, MR Sabuncu, AK Håberg, J Skranes, and LM Rimol. *Cerebral Cortex*, 28(2), pp.738-749, 2017.

J39.   "Diffeomorphic functional brain surface alignment: Functional demons." KH Nenning, H Liu, SS Ghosh, MR Sabuncu, E Schwartz, G Langs. *NeuroImage*. Vol 156, 2017.

J40.   "Mid-space-independent deformable image registration." I Aganj, JE Iglesias, M Reuter, MR Sabuncu, and B Fischl. *NeuroImage,* vol. 152, 2017.

J41.   "In vivo tau, amyloid, and gray matter profiles in the aging brain." J Sepulcre, AP Schultz, MR Sabuncu, T Gomez-Isla, J Chhatwal, A Becker, R Sperling, and KA Johnson. *Journal of Neuroscience*, vol. 36, no. 28, pp.7364-7374, 2016.

J42.   "Morphometricity as a measure of the neuroanatomical signature of a trait," MR Sabuncu, T Ge, AJ Holmes, J Smoller, R Buckner, and B Fischl. *Proceedings of National Academy of Arts and Sciences (PNAS)*, vol. 113, no. 39, E5749-E5756, 2016.

J43.   "Multidimensional heritability of neuroanatomical shape." T Ge, M Reuter, AM Winkler, AJ Holmes, PH Lee, LS Tirrell, JL Roffman, RL Buckner, JW Smoller, and MR Sabuncu. *Nature Communications,* vol. 7, p. 13291, 2016.

J44.   "Bayesian model reveals latent atrophy factors in Alzheimer's disease with dissociable preclinical and clinical trajectories." X Zhang, E Mormino, RA Sperling, MR Sabuncu, and BTT Yeo. *Proceedings of National Academy of Sciences (PNAS),* vol. 113, no. 42, p. E6535-E6544 , 2016. PMID: 27702899

J45.   "Polygenic risk of Alzheimer's disease is associated with early and late life processes." E Mormino, RA Sperling, A Holmes, RL Buckner, PL DeJager, JW Smoller, and <u>MR Sabuncu</u>. *Neurology,* vol. 87, no. 5, p. 481-8. 2016. PMID: 27385740

J46.   "Probabilistic Modeling of Imaging, Genetics and Diagnosis ", N Batmanghelich, A Dalca, G Quon, G., <u>MR Sabuncu</u>, and P Golland, *IEEE Transactions on Medical Imaging,* vol. 35, no. 7, p. 1765-79, 2016. PMID: 26886973

J47.   "Multi-atlas Segmentation of Biomedical Images: A Survey". JE Iglesias and <u>MR Sabuncu</u>. *Medical Image Analysis*, vol. 24, no. 1, 2015. PMID: 26201875

J48.   "Massively Expedited Genome-wide Heritability Analysis (MEGHA)." T Ge, TE Nichols, AJ Holmes, PH Lee, JL Roffman, RL Buckner, <u>MR Sabuncu*</u>, and JW Smoller*. *Proceedings of the National Academy of Sciences,* vol. 12, no. 8. 2015. PMCID: PMC4345618

J49.   "Identifying Shared Brain Networks in Individuals by Decoupling Functional and Anatomical Variability." G Langs, D Wang, P Golland, S Mueller, R Pan, <u>MR Sabuncu</u>, W Sun, K Li, and H Liu. *Cerebral Cortex*, bhv189, 2015. PMID: 26334050

J50.   "A Kernel Machine Method for Detecting Effects of Interaction Between Multidimensional Variable Sets: An Imaging Genetics Application." T Ge, T Nichols, D Ghosh, E Mormino, JW Smoller*, and <u>MR Sabuncu*</u>. *NeuroImage*, vol. 109, 2015. PMCID: PMC4339421

J51.   "An algorithm for optimal fusion of atlases with different labeling protocols." JE Iglesias, <u>MR Sabuncu</u>, I Aganj, P Bhatt, C Casillas, D Salat, A Boxer, B Fischl, and K Van Leemput. *Neuroimage*, vol. 106, 2015. PMCID: PMC4286284

J52.   "Avoiding symmetry-breaking spatial non-uniformity in deformable image registration via a quasi-volume-preserving constraint." I Aganj, M Reuter, <u>MR Sabuncu</u>, and B Fischl. *Neuroimage*, vol. 106, 2015. PMCID: PMC4286290

J53.   "Clinical Prediction from Structural Brain MRI Scans: A Large-Scale Empirical Study." <u>MR Sabuncu</u>, and E Konukoglu. *Neuroinformatics*: 1-16, 2014. PMCID: PMC4303550

J54.   "Event Time Analysis of Longitudinal Neuroimage Data." <u>MR Sabuncu</u>, JL Bernal-Rusiel, M Reuter, DN Greve, and B Fischl. *Neuroimage*, vol. 97, 2014. PMCID: PMC4078261

J55.   "Neurobiological basis of head motion in brain imaging." L-L Zeng, D Wang, MD Fox, <u>MR Sabuncu</u>, D Hu, M Ge, RL Buckner, and H Liu. *Proceedings of the National Academy of Sciences,* vol. 111, no. 16, 2014.

J56.   "Genetic variation of oxidative phosphorylation genes in stroke and Alzheimer's disease." A Biffi, <u>MR Sabuncu</u>, RS Desikan, N Schmansky, DH Salat, J Rosand, and CD Anderson, *Neurobiology of Aging*, vol. 35, no. 8, 2014. PMCID: PMC4329419

J57.   "A unified framework for cross-modality multi-atlas segmentation of brain MRI." EJ Iglesias, <u>MR Sabuncu</u>, and K Van Leemput. *Medical image analysis*, vol. 17, no. 8, 2013. PMCID: PMC3888218

J58.   "In vivo characterization of the early states of the amyloid-beta network." J Sepulcre, <u>MR Sabuncu</u>, A Becker, R Sperling, and KA Johnson, *Brain,* vol. 136, nol. 7, 2239-2252, 2013. PMCID: PMC3692037

J59.   "Improved Inference in Bayesian Segmentation Using Monte Carlo Sampling: Application to Hippocampal Subfield Volumetry." JE Iglesias, <u>MR Sabuncu</u>, and K Van Leemput, *Medical Image Analysis*, vol. 17, no. 7, p. 766-778, 2013. PMCID: PMC3719857

J60. "Spatiotemporal Linear Mixed Effects Modeling for the Mass-univariate Analysis of Longitudinal Neuroimage Data." JL Bernal-Rusiel, M Reuter, DN Greve, B Fischl, and MR Sabuncu, *Neuroimage*, vol. 81, p. 358-370, 2013. PMCID: PMC3816382

J61. "A Surface-based Analysis of Language Lateralization and Cortical Asymmetry." DN Greve, L Van der Haegen, Q Cai, S Stufflebeam, MR Sabuncu, B Fischl, and M Bysbaert, *Journal of Cognitive Neuroscience,* vol. 25, no. 9, 1477-1492, 2013. PMCID: PMC3767398

J62. "On Removing Interpolation and Resampling Artifacts in Rigid Image Registration." I Aganj, B Yeo, MR Sabuncu, and B Fischl, IEEE *Transactions on Image Processing*, vol. 22, no. 2, 816-827, 2013. PMCID: PMC3694571

J63. "Individual Variability in Functional Connectivity Architecture of the Human Brain." S Mueller, D Wang, MD Fox, BT Yeo, J Sepulcre, MR Sabuncu, R Shafee, J Lu, and H Liu, *Neuron,* vol. 77, no. 3, 586-595, 2013. PMCID: PMC3746075

J64. "Statistical Analysis of Longitudinal Neuroimage Data with Linear Mixed Effects Models." JL Bernal-Rusiel, DN Greve, M Reuter, B Fischl, and MR Sabuncu, *Neuroimage*, vol. 66, 249-260, 2012. PMCID: PMC3586747

J65. "The Relevance Voxel Machine (RVoxM): A Self-tuning Bayesian Model for Informative Image-based Prediction." MR Sabuncu and K Van Leemput, *IEEE Transactions on Medical Imaging*, vol. 31, no. 12, 2012. PMCID: PMC3623564

J66. "Stepwise Connectivity of the Modal Cortex Reveals the Multimodal Organization of the Human Brain." J Sepulcre, MR Sabuncu, BTT Yeo, H Liu, and KA Johnson, *The Journal of Neuroscience*, vol. 32, no. 31, p. 10649-10661, 2012. PMCID: PMC3483645

J67. "Network Assemblies in the Functional Brain." J Sepulcre, MR Sabuncu, and KA Johnson, *Current Opinion in Neurology*, vol. 25, no. 4, p. 384-391, 2012. PMID: 22766721

J68. "A Coding Variant in CR1 Interacts with APOE-ε4 to Influence Cognitive Decline." BT Keenan, JM Shulman, LB Chibnik, T Raj, D Tran, MR Sabuncu, AN Allen, et al., *Human molecular genetics*, vol. 21, no. 10, p. 2377-2388, 2012. PMID: 22343410

J69. "Measuring and Comparing Brain Cortical Surface Area and Other Areal Quantities." AM Winkler, MR Sabuncu, BTT Yeo, B Fischl, DN Greve, P Kochunov, TE Nichols, J Blangero, and DC Glahn, *NeuroImage*, vol. 61, no. 4, p. 1428-1443, 2012. PMID: 22446492

J70. "The Influence of Head Motion on Intrinsic Functional Connectivity MRI." K Van Dijk, MR Sabuncu, and RL Buckner, *NeuroImage*, vol. 59, no. 1, p. 431-438, 2012. PMID: 21810475

J71. "The Association between a Polygenic Alzheimer Score and Cortical Thickness in Clinically Normal Subjects." MR Sabuncu, RL Buckner, JW Smoller, P Hyuon-Lee, B Fischl, and RA Sperling, *Cerebral Cortex*, vol. 22, no. 11, p. 2653-2661, 2012. PMID: 22169231

J72. "The Organization of the Human Cerebral Cortex Estimated by Functional Connectivity." BTT Yeo, FM Krienen, J Sepulcre, MR Sabuncu, D Lashkari, M Hollinshead, JL Roffman, JW Smoller, L Zöllei, JR Polimeni, B Fischl, H Liu, and RL Buckner, *Journal of Neurophysiology*, vol. 106, no. 3, 2011. PMID: 21653723

J73. "The dynamics of cortical and hippocampal atrophy in Alzheimer's disease." MR Sabuncu, RS Desikan, J Sepulcre, BTT Yeo, H Liu, NJ Schmansky, M Reuter, MW Weiner, RL Buckner, RA Sperling, and B. Fischl. *Archives of Neurology*, vol. 68, no. 8, 2011. PMID: 21825241

J74. "Selective disruption of the cerebral neocortex in Alzheimer's disease." RS Desikan, MR Sabuncu, NJ Schmansky, M Reuter, HJ Cabral, CP Hess, MW Weiner, A Biffi, CD Anderson, J

Rosand, DH Salat, TL Kemper, AM Dale, RA Sperling and B Fischl, *PLoS ONE*, vol. 5, no. 9, 2010. PMID: 20886094

J75. "Genetic Variation and Neuroimaging Measures in Alzheimer Disease." A Biffi, CD Anderson, RS Desikan, <u>MR Sabuncu</u>, L Cortellini, N Schmansky, D Salat and J Rosand, *Archives of Neurology*, vol. 67, no. 6, p. 677-685, 2010. PMID: 20558387

J76. "A Generative Model for Image Segmentation Based on Label Fusion." <u>MR Sabuncu*</u>, BTT Yeo*, K Van Leemput, B Fischl, and P Golland. *IEEE Transactions on Medical Imaging*, vol. 29, no. 10, p. 1714-1729, 2010. PMID: 20562040

J77. "Learning Task-Optimal Registration Cost Functions for Localizing Cytoarchitecture and Function in the Cerebral Cortex." BTT Yeo, <u>MR Sabuncu</u>, T Vercauteren, D Holt, K Amunts, K Zilles, P Golland, B Fischl. *IEEE Transactions on Medical Imaging*, vol. 29, no. 7, p. 1424-41, 2010. PMID: 20529736

J78. "Spherical Demons: Fast Diffeomorphic Landmark-free Surface Registration." BTT Yeo*, <u>MR Sabuncu*</u>, T Vercauteren, N Ayache, B Fischl and P Golland. *IEEE Transactions on Medical Imaging,* vol. 29, no. 3, p. 650-668, 2010. PMID: 19709963

J79. "Function-based inter-subject alignment of the cortical anatomy." <u>MR Sabuncu*</u>, BD Singer*, B Conroy, RE Bryan, PJ Ramadge and JV Haxby, *Cerebral Cortex*, vol. 20, no. 1, p. 130-140, 2010. PMID: 19420007

J80. "Image-driven Population Analysis through Mixture-Modeling." <u>MR Sabuncu</u>, SK Balci, ME Shenton and P Golland. *IEEE Transactions on Medical Imaging*, vol. 28, no. 9, p. 1473-1487, 2009. PMID: 19336293

J81. "Consistency Clustering: A Robust Algorithm for Group-Wise Registration, Segmentation and Automatic Atlas Construction in Diffusion MRI." U Ziyan, <u>MR Sabuncu</u>. WEL Grimson, and CF Westin, *International Journal of Computer Vision*, vol. 85, no. 3, p. 279-290, 2009. PMID: 20442792

J82. "Effects of Registration Regularization and Atlas Sharpness on Segmentation Accuracy." BTT Yeo*, <u>MR Sabuncu*</u>, R Desikan, B Fischl and P Golland, *Medical Image Analysis Journal*, vol. 12, p. 603-615, 2008. PMID: 18667352. ***Winner of Young Investigator Publication Impact Award at MICCAI'11.***

J83. "Using Spanning Graphs for Efficient Image Registration." <u>MR Sabuncu</u> and PJ Ramadge, *IEEE Transactions on Image Processing*, vol. 17, no. 5, p. 788-797, May 2008. PMID: 18390383

CONFERENCE PAPERS (PEER-REVIEWED FULL-LENGTH)

C1. "Label conditioned segmentation." T Ma, BC Lee, and <u>MR Sabuncu</u>. *In Proceedings of Medical Imaging for Deep Learning (MIDL),* 2022.

C2. "KeyMorph: Robust Multi-modal Affine Registration via Unsupervised Keypoint Detection." EM Yu, AQ Wang, AV Dalca, and <u>MR Sabuncu</u>. *In Proceedings of Medical Imaging for Deep Learning (MIDL),* 2022.

C3. "Hyper-convolution Networks for Biomedical Image Segmentation." T Ma, AV Dalca, and <u>MR Sabuncu</u>. *In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (pp. 1933-42),* 2022.

C4. "Text2Brain: Synthesis of Brain Activation Maps from Free-Form Text Query." G Ngo, M Nguyen, NF Chen, and <u>MR Sabuncu</u>. *In International Conference on Medical Image Computing and Computer-Assisted Intervention* (MICCAI), 2021.

C5. "Joint Optimization of Hadamard Sensing and Reconstruction in Compressed Sensing Fluorescence Microscopy." A Wang, AK LaViolette, L Moon, Chris Xu, and Mert R. Sabuncu. In *International Conference on Medical Image Computing and Computer-Assisted Intervention*, pp. 129-139. Springer, Cham, 2021.

C6. "Temporal Feature Fusion with Sampling Pattern Optimization for Multi-echo Gradient Echo Acquisition and Image Reconstruction." J Zhang, H Zhang, C Li, P Spincemaille, MR Sabuncu, TD Nguyen, and Y Wang. In *International Conference on Medical Image Computing and Computer-Assisted Intervention*, pp. 232-242. Springer, Cham, 2021.

C7. "Hybrid optimization between iterative and network fine-tuning reconstructions for fast quantitative susceptibility mapping" J Zhang, H Zhang, P Spincemaille, T Nguyen, MR Sabuncu, and Y Wang. In *Medical Imaging with Deep Learning*, pp. 870-880. PMLR, 2021.

C8. "Real-time uncertainty estimation in computer vision via uncertainty-aware distribution distillation" Y Shen, Z Zhang, MR Sabuncu, and L Sun. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, pp. 707-716. 2021.

C9. "Ensembling Low Precision Models for Binary Biomedical Image Segmentation." T Ma, H Zhang, H Ong, A Vora, TD Nguyen, A Gupta, Y Wang, and MR Sabuncu. *In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (pp. 325-334),* 2021.

C10. "Self-Distillation as Instance-Specific Label Smoothing." Z Zhang and MR Sabuncu. *Proc of Neural Information Processing Systems (NeurIPS)*, 2020.

C11. "Neural encoding with visual attention." M Khosla, G Ngo, K Jamison, A Kuceyeski, and MR Sabuncu. *Proc of Neural Information Processing Systems (NeurIPS)*, 2020.

C12. "From Connectomic to Task-Evoked Fingerprints: Individualized Prediction of Task Contrasts from Resting-State Functional Connectivity." G Ngo, M Khosla, K Jamison, A Kuceyeski, and MR Sabuncu. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2020.

C13. "A shared neural encoding model for the prediction of subject-specific fMRI response." M Khosla, G Ngo, K Jamison, A Kuceyeski, and MR Sabuncu. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2020.

C14. "Synthetic Learning: Learn From Distributed Asynchronized Discriminator GAN Without Sharing Medical Image Data." Q Chang, Q Hu, Y Zhang, MR Sabuncu, C Chen, T Zhang, and DN Metaxas. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, pp. 13856-13866. 2020.

C15. "An Auto-Encoder Strategy for Adaptive Image Segmentation." EM Yu, JE Iglesias, AV Dalca, and MR Sabuncu. In *Medical Imaging with Deep Learning*. 2020.

C16. "Volumetric landmark detection with a multi-scale shift equivariant neural network." T Ma, A Gupta, and MR Sabuncu. In *2020 IEEE 17th International Symposium on Biomedical Imaging (ISBI)* (pp. 981-985). IEEE.

C17. "Learning Conditional Deformable Templates with Convolutional Networks." AV Dalca, M Rakic, J Guttag, and MR Sabuncu. *Proc of Neural Information Processing Systems (NeurIPS)*, 2019.

C18. "Detecting Cannabis-Associated Cognitive Impairment Using Resting-State fNIRS." Y Zhu, J Gilman, AE Evins, and MR Sabuncu. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2019.

C19.   "Unsupervised deep learning for Bayesian brain MRI segmentation." AV Dalca, E Yu, P Golland, B Fischl, MR Sabuncu, and JE Iglesias. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2019.

C20.   "RSANet: Recurrent Slice-Wise Attention Network for Multiple Sclerosis Lesion Segmentation." H Zhang, J Zhang, Q Zhang, J Kim, S Zhang, SA Gauthier, P Spincemaille, TD Nguyen, MR Sabuncu, and Y Wang. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2019.

C21.   "Learning-based Optimization of the Under-sampling Pattern in MRI." CD Bahadir, AV Dalca, and MR Sabuncu. *Proc of Information Processing in Medical Imaging (IPMI).* 2019

C22.   "A Convolutional Autoencoder Approach to Learn Volumetric Shape Representations for Brain Structures." EM Yu, and MR Sabuncu. *Proc of International Symposium on Biomedical Imaging (ISBI),* 2019.

C23.   "Generalized Cross Entropy Loss for Training Deep Neural Networks with Noisy Labels." Z Zhang, and MR Sabuncu, *Proc of Neural Information Processing Systems (NeurIPS)*, 2018.

C24.   "Unsupervised Learning for Fast Probabilistic Diffeomorphic Registration." AV Dalca, G Balakrishnan, J Guttag, and MR Sabuncu. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2018.

C25.   "Anatomical Priors in Convolutional Networks for Unsupervised Biomedical Segmentation." A Dalca, J Guttag, and MR Sabuncu. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018.

C26.   "An Unsupervised Learning Model for Deformable Medical Image Registration." G Balakrishnan, A Zhao, MR Sabuncu, J Guttag, and AV Dalca. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (pp. 9252-9260), 2018.

C27.   "Population Based Image Imputation." AV Dalca, KL Bouman, WT Freeman, NS Rost, MR Sabuncu, P Golland. International Conference on *Information Processing in Medical Imaging* (IPMI), 2017.

C28.   "A Sparse Bayesian Learning Algorithm for Longitudinal Image Data." MR Sabuncu. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2015.

C29.   "Predictive Modeling of Anatomy with Genetic and Clinical Data." AV Dalca, R Sridharan, MR Sabuncu, and Polina Golland. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2015.

C30.   "Mid-Space-Independent Symmetric Data Term for Pairwise Deformable Image Registration". I Aganj, JE Iglesias, M Reuter, MR Sabuncu, and B Fischl. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2015.

C31.   "A Universal and Efficient Method to Compute Maps from Image-based Prediction Models." MR Sabuncu, (2014), *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2014.

C32.   "A Cautianary Analysis of STAPLE Using Direct Inference of Segmentation Truth." K Van Leemput and MR Sabuncu, (2014), *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2014.

C33. "Segmentation of Cerebrovascular Pathologies in Stroke Patients with Spatial and Shape Priors." A Dalca, R Sridharan, L Cloonan, K Fitzpatrick, A Kanakis, K Furie, J Rosand, O Wu, <u>MR Sabuncu</u>, N Rost, and P Golland. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, 2014.

C34. "Example-based Restoration of High-resolution Magnetic Resonance Image Acquisitions." E Konukoglu, A van der Kouwe, <u>MR Sabuncu</u>, and B Fischl (2013), *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, p. 131-138, 2013.

C35. "A probabilistic, non-parametric framework for inter-modality label fusion." JE Iglesias, <u>MR Sabuncu</u>, and K Van Leemput, (2013), *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*)*, p. 576-583, 2013.

C36. "Incorporating Parameter Uncertainty in Bayesian Segmentation Models: Application to Hippocampal Subfield Volumetry." J Iglesias, <u>MR Sabuncu</u>, and K Van Leemput, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*),* LNCS 7512, p. 50-57, 2012.

C37. "A Generative Model for Multi-atlas Segmentation Across Modalities." JE Iglesias, <u>MR Sabuncu</u>, and K Van Leemput, *International Symposium on Biomedical Imaging (ISBI),* 2012.

C38. "The Relevance Voxel Machine (RVoxM): A Bayesian method for Image-based prediction." <u>MR Sabuncu</u> and K Van Leemput, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI), LNCS 6893, p. 99–106, 2011.

C39. "Supervised Nonparametric Image Parcellation." <u>MR Sabuncu</u>, BTT Yeo, K Van Leemput, B Fischl, and P Golland, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*),* LNCS 5762, p. 1075-83, 2009.

C40. "Asymmetric Image-Template Registration." <u>MR Sabuncu,</u> BTT Yeo, T Vercauteren, K Van Leemput and P Golland, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*),* LNCS 5761, p. 565-573, 2009.

C41. "Task-optimal Registration Cost Functions." BTT Yeo, <u>MR Sabuncu,</u> B Fisch and P Golland, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*),* LNCS 5761, p. 598-606, 2009.

C42. "A Unified Framework for MR Based Disease Classification." KM Pohl and <u>MR Sabuncu</u>, *Information Processing in Medical Imaging (IPMI) 2009,* LNCS 5636, p. 300-313, 2009.

C43. "Discovering Modes of an Image Population through Mixture Modeling." <u>MR Sabuncu</u>, SK Balci, and P Golland. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI),* LNCS 5242, p. 381-389, 2008.

C44. "Spherical Demons: Fast Surface Registration." BTT Yeo, <u>MR Sabuncu</u>, T Vercauteren, N Ayache, B Fischl, and P Golland. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (*MICCAI*),* LNCS 5241, p. 745-753, 2008.

C45. "Analysis of Surfaces Using Constrained Regression Models." S Darkner, <u>MR Sabuncu</u>, P Golland, R Paulsen and R Larsen. *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, LNCS 5241, p. 842-849, 2008.

C46.   "Fiber Bundle-based Nonlinear Registration of Diffusion MR Images." U Ziyan, <u>MR Sabuncu</u>, L O'Donnell, and CF Westin, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, LNCS 4791, p. 351-358, 2007.

C47.   "Effects of Registration Regularization and Atlas Sharpness on Segmentation Accuracy." BTT Yeo, <u>MR Sabuncu</u>, R Desikan, B Fischl and P Golland, *Proceedings of the International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, LNCS 4791, p. 683-691, 2007. ***Winner of MICCAI 2007 Young Scientist Award.***

C48.   "Graph Theoretic Image Registration Using Prior Examples." <u>MR Sabuncu</u> and PJ Ramadge. *Proceedings of EUSIPCO 2005*, Antalya, Turkey, September 2005.

C49.   "Gradient based Optimization of an EMST Registration Function." <u>MR Sabuncu</u> and PJ Ramadge. *Proceedings of IEEE ICASSP 2005*, Philadelphia, March 2005.

C50.   "Fast Alignment of Digital Images Using a Lower Bound on an Entropy Metric." <u>MR Sabuncu</u>, PJ Ramadge. *Proceedings of IEEE ICIP 2004*, Singapore, October 2004.

C51.   "Gradient based Non-uniform Sub-sampling for Information-theoretic Alignment Methods." <u>MR Sabuncu</u> and PJ Ramadge. *Proceedings of IEEE International Conference of EMBS 2004*, San Francisco, CA, September 2004.

WORKSHOP PAPERS (PEER-REVIEWED)

W1.   "HyperRecon: Regularization-Agnostic CS-MRI Reconstruction with Hypernetworks." AQ Wang, AV Dalca, <u>MR Sabuncu.</u> In *International Workshop on Machine Learning for Medical Image Reconstruction* (pp. 3-13). Springer, Cham. 2021.

W2.   "Neural Network-based Reconstruction in Compressed Sensing MRI Without Fully-sampled Training Data." AQ Wang, AV Dalca, and <u>MR Sabuncu</u>. In *International Workshop on Machine Learning for Medical Image Reconstruction* (pp. 27-37). Springer, Cham. 2020.

W3.   "Extending LOUPE for K-space Under-sampling Pattern Optimization in Multi-coil MRI." J Zhang, H Zhang, A Wang, Q Zhang, <u>MR Sabuncu</u>, P Spincemaille, TD Nguyen, and Y Wang. In *International Workshop on Machine Learning for Medical Image Reconstruction* (pp. 91-101). Springer, Cham. 2020.

W4.   "Learning Conditional Deformable Shape Templates for Brain Anatomy." EM Yu, AV Dalca, and <u>MR Sabuncu</u>. In *International Workshop on Machine Learning in Medical Imaging* (pp. 353-362). Springer, Cham. 2020.
W5.   "Few Labeled Atlases are Necessary for Deep-Learning-Based Segmentation." HW Lee, <u>MR Sabuncu</u>, and AV Dalca. *Machine Learning for Health Care Workshop at NeurIPS,* 2019.

W6.   "Detecting abnormalities in resting-state dynamics: An unsupervised learning approach." M Khosla, K Jamison, A Kuceyeski, and <u>MR Sabuncu</u>. In *International Workshop on Machine Learning in Medical Imaging*, 2019.

W7.   "Is deep learning better than kernel regression for functional connectivity prediction of fluid intelligence?" T He, R Kong, AJ Holmes, <u>MR Sabuncu</u>, SB Eickhoff, D Bzdok, J Feng, and BTT Yeo. In *2018 International Workshop on Pattern Recognition in Neuroimaging (PRNI)*, pp. 1-4. IEEE, 2018

W8.   "A Bayesian Disease Progression Model for Clinical Trajectories", Y Zhu, and <u>MR Sabuncu</u>. Beyond MIC Workshop, MICCAI 2018.

W9.   "3D Convolutional Neural Networks for Classification of Functional Connectomes." M Khosla, K Jamison, A Kuceyeski, and <u>MR Sabuncu.</u> Deep Learning in Medical Image Analysis (DLMIA) Workshop at MICCAI 2018.

W10.   "An Improved Optimization Method for the Relevance Voxel Machine." M Ganz, <u>MR Sabuncu</u>, and K Van Leemput. In *Machine Learning in Medical Imaging* (pp. 147-154) at MICCAI 2013.

W11.   "On Feature Relevance in Image-Based Prediction Models: An Empirical Study." E Konukoglu, M Ganz, K Van Leemput, and <u>MR Sabuncu</u>. In *Machine Learning in Medical Imaging* (pp. 171-178) at MICCAI 2013.

W12.   "A Bayesian Algorithm for Image-Based Time-to-Event Prediction." <u>MR Sabuncu.</u> In *Machine Learning in Medical Imaging* (pp. 74-81) at MICCAI 2013.

W13.   "Towards Efficient Label Fusion by Pre-Alignment of Training Data." M Depa, G Holmvang, EJ Schmidt, P Golland, and <u>MR Sabuncu</u>, *Proceedings of Workshop on Multi-atlas Labeling and Statistical Fusion at MICCAI'11,* 2011.

W14.   "Building an Average Population HARDI Atlas." S Bouix, Y Rathi, and <u>MR Sabuncu</u>, *Proceedings of the Workshop on Computational Diffusion MRI at MICCAI'10,* 2010.

W15.   "Nonparametric Mixture Models for Supervised Image Parcellation." <u>MR Sabuncu</u>, BTT Yeo, K Van Leemput, B Fischl, and P Golland, *Proceedings of the Workshop on Probabilistic Models for Medical Image Analysis at MICCAI'09,* 2009.

W16.   "Prediction of Successful Memory Encoding from fMRI Data." SK Balci, <u>MR Sabuncu</u>, J Yoo, SS Ghosh, S Whitefield-Gabrieli, JDE Gabrieli, and P Golland. *Proceedings of the Analysis of Functional Medical Images Workshop at MICCAI'08,* 2008.

W17.   "What Data to Co-register for Computing Atlases." BTT Yeo, <u>MR Sabuncu</u>, B Fischl, and P Golland. *Proceedings of the International Conference on Computer Vision (ICCV): IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis (MMBIA)*, 2007.

W18.   "A Robust Algorithm for Fiber-bundle Atlas Construction." U Ziyan, <u>MR Sabuncu</u>, and CF Westin. *Proceedings of the International Conference on Computer Vision (ICCV): IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis (MMBIA),* 2007.

W19.   "Joint Registration and Clustering of Images." <u>MR Sabuncu</u> and P Golland, *Proceedings of the Statistical Registration Workshop at MICCAI'07,* 2007.

W20.   "Spatial Information in Entropy based Image Registration." <u>MR Sabuncu</u> and PJ Ramadge, *Workshop on Biomedical Image Registration*, LNCS 2717, Springer-Verlag, 2003.

EDITED BOOKS

E1. "Imaging Genetics", Editors: AV Dalca, NK Batmanghelich, <u>MR Sabuncu</u>, L Shen. Elseiver 2017.

E2. "Machine Learning and Medical Imaging," Editors: G Wu, D Shen, and <u>MR Sabuncu</u>, Elsevier 2016.

MISCELLANEOUS

M1.   "Fine-tuning of Pretrained Convolutional Neural Networks Improves Image Classification Accuracy in Central Nervous System Autopsy Histology." Ben Liechty, David

Pisapia, and <u>MR Sabuncu</u>. *United States & Canadian Academy of Pathology's 109th Annual Meeting*. 2020.

M2.   "Increasing Statistical Power by Modeling Spatiotemporal Correlations in Longitudinal Neuroimage Data." J Bernal-Rusiel, D Greve, M Reuter, B Fischl and <u>MR Sabuncu</u>, *19th Annual Human Brain Mapping Conference*, 2013.

M3.   "A Generative Model for Probabilistic Label Fusion of Multimodal Data." J Iglesias, <u>MR Sabuncu</u>, and K Van Leemput, *Proceedings of the Workshop on Multimodal Brain Image Analysis at MICCAI'12*, 2012.

M4.   "Modeling anatomical heterogeneity in populations." P Golland and <u>MR Sabuncu</u>, *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2011.

M5.   "Automatic Surface-based Interhemispheric Registration with FreeSurfer." D.N. Greve, M.R. Sabuncu, R.L. Buckner, B. Fischl. *17th Annual Human Brain Mapping Conference,* 2011.

M6.   "Entropy-based Image Registration." <u>MR Sabuncu</u>, *PhD Thesis*, Princeton University, 2006.

M7.   "Function-based inter-subject alignment of the cortical anatomy." <u>MR Sabuncu</u>, B.D. Singer, R.E. Bryan, P. J. Ramadge, and J.V. Haxby. *12th Annual Human Brain Mapping Conference*, Florence, Italy, June 2006.

PRE-PRINTS

PP1.   "GLACIAL: Granger and Learning-based Causality Analysis for Longitudinal Studies." M Nguyen, GH Ngo, and <u>MR Sabuncu</u>. *arXiv preprint arXiv:2210.07416*. (2022)

PP2.   "Computing Multiple Image Reconstructions with a Single Hypernetwork." AQ Wang, AV Dalca, and <u>MR Sabuncu</u>. *arXiv preprint arXiv:2202.11009* (2022).

PP3.   "Hyper-Convolutions via Implicit Kernels for Medical Imaging." T Ma, AQ Wang, AV Dalca, and <u>MR Sabuncu</u>. *arXiv preprint arXiv:2202.02701* (2022).

PP4.   "Personalized visual encoding model construction with small data." Z Gu, K Jamison, <u>MR Sabuncu</u>, and Amy Kuceyeski. *arXiv preprint arXiv:2202.02245* (2022).

PP5.   "LARO: Learned Acquisition and Reconstruction Optimization to accelerate Quantitative Susceptibility Mapping." J Zhang, P Spincemaille, H Zhang, TD Nguyen, C Li, J Li, I Kovanlikaya, <u>MR Sabuncu</u>, Wang Y. *arXiv preprint arXiv:2211.00725. 2022 Nov 1.*

PP6.   "Ex uno plures: Splitting One Model into an Ensemble of Subnetworks." Z Zhang, VR Gao, and <u>MR Sabuncu</u>. arXiv preprint arXiv:2106.04767 (2021).

PP7.   "Intelligence plays dice: Stochasticity is essential for machine learning." <u>MR Sabuncu</u>. *arXiv preprint arXiv:2008.07496* (2020).

PP8.   "Confidence Calibration for Convolutional Neural Networks Using Structured Dropout." Z Zhang, AV Dalca, and <u>MR Sabuncu</u>. *arXiv preprint arXiv:1906.09551.* 2019.

PP9.   "Learning the Distribution: Unified Distillation Paradigm for Fast Uncertainty Estimation in Computer Vision." Y Shen, Z Zhang, <u>MR Sabuncu</u> and L Sun. A *arXiv preprint arXiv:2007.15857*. 2020.

PP10.   "Predicting response to motor therapy in chronic stroke patients using Machine Learning." C Tozlu, D Edwards, A Boes, D Labar, KZ Tsagaris, J Silverstein, H Lane, <u>MR Sabuncu</u>, C Liu, and A Kuceyeski. *bioRxiv* (2018): 457416.

PP11.   "Unsupervised Data Imputation via Variational Inference of Deep Subspaces." AV Dalca, J Guttag, and <u>MR Sabuncu</u>. *arXiv preprint arXiv:1903.03503.*

PATENTS

P1.   "Learning-based Optimization of the Under-sampling Pattern in Compressed Sensing", <u>MR Sabuncu</u> and CD Bahadir. US Patent 17416281, Granted 3/2022.

P2.   "Image Registration using Minimum Entropic Graphs." <u>MR Sabuncu</u> and C Chefd'hotel. US Patent 20060093240.

P3.   "Incorporating Prior Knowledge from Pre-Aligned Image Pairs into EMST-Based Image Registration." <u>MR Sabuncu</u> and C. Chefd'hotel. US Patent 20070086677.

RESEARCH FUNDING

ACTIVE

- National Institutes of Health (NIH) RF1 Grant from NMH (PI: Kuceyeski, **Co-PI: Sabuncu**)

  "Heritability and cognitive implications of structural-functional connectome coupling", Award Period: March 2021-March 2024

  Total funds: ~**US$1.4M**

- National Science Foundation (NSF) **CAREER Award**

  "CAREER: New Learning-based Algorithms for the Analysis of Very-Large-Scale Neuroimaging Data" (**PI: <u>Sabuncu</u>**), Award Period: **10/2018-9/2023**

  Total funds: ~**US$ 600k**

- Cornell NeuroSurgery/BME Pilot Funding

  "Machine Learning Approaches to Central Nervous System Tumor Diagnostics Using Multi-parametric, Heterogeneous Input Data Sets" (**PI: <u>Sabuncu</u> and Pisapia**), Award Period: **11/18-11/19**

  Total funds: **US$ 50k**

- Dystonia Medical Research Foundation

  "Machine learning guided deep brain stimulation to cure neurological disease" (PI: Goldberg, **Co-I: <u>Sabuncu</u>**), Award Period: **9/2018-8/2021**

  Total funds: **US$ 170k**

- National Institutes of Health (NIH) **R01 Grant** from NLM (1R01 LM012719)

  "Novel Bioinformatics Strategies to Study Associations Between Genetic Variants and Neuroanatomical Shape" (**PI: <u>Sabuncu</u>**), Award Period: **9/2017-8/2022**

  Total funds: **US$ 1.6M**

- National Institutes of Health (NIH) **R01 Grant** from NIA (1R01 AG053949-01A1)

  "Advanced machine learning algorithms that integrate genomewide, longitudinal MRI and demographic data to predict future cognitive decline toward dementia" (**PI: <u>Sabuncu</u>**), Award Period: **7/2017-6/2022**

  Total funds: **US$ 2M**

- National Science Foundation (NSF), **NeuroNex Resource Center** Grant

"Cornell Neurotechnology Hub for large scale, noninvasive recording of neural activity" (PI: Xu, **Co-PI: <u>Sabuncu</u>**), Award Period: **9/2017-8/2022**

Total funds: **US$ 9M**

COMPLETED

- National Institutes of Health (NIH) **STTR Grant** (Sub-award from Brain Solutions, LLC)

  "Designing Machine Learning Algorithms for fNIRS data: STTR Phase II" (**Sub-contract PI: <u>Sabuncu</u>**), Award Period: **8/2018-7/2020**

  Total funds: **US$ 130,600**

- National Institutes of Health (NIH) **R21 Grant**

  "A Machine Learning Approach For CTA-based Plaque Characterization and Stroke Risk Prediction in Carotid Artery Atherosclerosis" (**PI: Gupta – WCM, Radiology, Sub-contract PI: <u>Sabuncu</u>**) Period: **12/2018-11/2020**

  Total requested funds (Cornell ECE Subcontract): **US$ 242,292**

- National Institutes of Health (NIH) **STTR Grant** (Sub-award from Brain Solutions, LLC)

  "Designing Machine Learning Algorithms for fNIRS data: STTR Phase I" (**Sub-contract PI: <u>Sabuncu</u>**), Award Period: **10/2017-10/2018**

  Total funds: **US$ 55,472**

- National Institutes of Health (NIH) **R21 Grant** from NIA (1R21AG050122-01A1)

  "Multi-modal Prediction of Future Clinical Dementia" (**PI: <u>Sabuncu</u>**), Award Period: **5/2016-4/2018**

  Total funds: **US$ 478,500**

- National Institutes of Health (NIH) **STTR Grant** from NIA (1R41AG052246-01)

  "A Structural Brain MRI Dementia Forecast Tool" (PI: Schmansky, **Co-PI: <u>Sabuncu</u>**),), Award Period: **9/2015-8/2017**

  Total funds: **US$ 225,000**

- MGH Executive Committee On Research, Deliberative Interim Research Support Grant

  "Novel Methods for Testing Complex Associations in Neuroimaging Genetics" (**PI: <u>Sabuncu</u>**), Award Period: **2015-2017**

  Total funds: **US$ 86,250**

- National Institutes of Health (NIH) **K25 Career Development Grant**

  "Multivariate Pattern Analysis Methods for Neuroimaging Genetics Studies" (**PI: <u>Sabuncu</u>**), Award Period: **9/2011-6/2017**

  Total funds: **US$ 876,960**

- American Health Assistance Foundation (AHAF, now joined with BrightFocus) Alzheimer's Disease Pilot Grant (**PI: <u>Sabuncu</u>**), Award Period: **2012-15**. Total funds: **US$ 260,000.**

- Harvard Catalyst KL2 MeRIT Award (**PI: <u>Sabuncu</u>**), Award Period: **2010-2012**. Total funds: **US$ 250,000.**

- Siemens Research Grant, **2004-2006**. Partial support for PhD studies at Princeton.

- Graduate Fellow, Department of Electrical Engineering, Princeton University, Princeton, NJ. **2001-2002**.

- Undergraduate Fellowship, Middle East Technical University, Ankara, Turkey. 1997-2001.

INVITED TALKS

Academic Institutions (Outside Home Institution)

- "Beyond Curve-Fitting: What's next for deep learning in biomedical imaging?", Electrical and Systems Engineering Department Colloquium at University of Pennsylvania, November 2021

- "Deep Learning for Compressed Sensing", "Beyond Patterns" Seminar Series, University of Erlangen, October 2021

- "Deep Learning for Compressed Sensing MRI", Weill Cornell MRI Research Institute Seminar, February 2021

- "Deep Learning based Acceleration of MRI", Electrical and Systems Engineering Department Colloquium at University of Pennsylvania, November 2020.

- "Deep Learning based Acceleration of MRI", CDT in Smart Medical Imaging Seminar Series, Kings College London, December 2020.

- "Beyond Supervised Learning for Neuroimaging," ESE Seminar at University of Pennsylvania, December 2019.

- "Beyond Supervised Learning for Neuroimaging," EE Seminar at Rice University, November 2019.

- "Beyond Supervised Learning for Neuroimaging," ISL Colloquium, EE Department, Stanford University, November 2019.

- "Beyond Supervised Learning for Neuroimaging," Computational Imaging Seminar, EECS Department, UC Berkeley, November 2019.

- "Beyond Supervised Learning for Neuroimaging," FMRI Seminar at Department of Radiology, Yale University, October 2019.

- "Beyond Supervised Learning for Biomedical Imaging," Seminar at Department of Computing, Imperial College, London, UK, October 2019.

- "Beyond Supervised Learning for Biomedical Imaging," EE Department Seminar, Princeton University, October 2019.

- "Beyond Supervised Learning for Biomedical Imaging," ECE Graduate Seminar, Carnegie Mellon University, September 2019.

- "Beyond Supervised Learning for Biomedical Imaging," EECS Department Seminar, University of Michigan, August 2019.

- "VoxelMorph: Unsupervised learning for fast probabilistic diffeomorphic registration," Computer Science Seminar, University of Central Florida, April 2019.

- "Rapid, Efficient, and Robust Neuroimage Analysis with Deep Neural Networks," Department Seminar, Department of Electrical Engineering, University of Southern California, April 2018.

- "Rapid, Efficient, and Robust Neuroimage Analysis with Deep Neural Networks," Department Colloquium, Computer Science Department, Rutgers University, March 2018.

- "Probing the Genetic Underpinnings of Brain Structure in Healthy Subjects and Alzheimer's Disease Patients," Biomedical Research Imaging Center Seminar Series, UNC Chapel Hill, May 2016.

- "Probing the genetic underpinnings of brain structure in healthy controls and Alzheimer's disease," UC Davis Neurology Grand Rounds, December 2015.

- "Statistical Methods for Large-Scale Neuroimage Analysis," Seminar at Department of Biomedical Engineering, UC Davis, August 2015.

- "Examining the genetic underpinnings of structural neuroimaging phenotypes," Seminar at Dept. of Radiology and Imaging Sciences, Indiana University School of Medicine, Indianapolis, IN, March 2015.

- "Examining the genetic underpinnings of structural neuroimaging phenotypes," Seminar at Department of Psychology, Yale University, February 2015.

- "The Relevance Voxel Machine: Bayesian image-based prediction," Seminar at Department of Radiology, University of Pennsylvania, January 2013.

- "A Generative Model for Image Segmentation based on Label Fusion," Seminar at Faculty of Engineering and Natural Sciences, Sabanci University, Turkey, September 2009.

- "Image-driven Population Analysis through Mixture Modeling," Seminar at Computer Science Department, Brown University, October 2008.

- "Inter-subject Image Registration," Seminar at Central for Neural Science, NYU, April 2007.

- "Renyi entropy-based image registration: a graph-theoretic approach," Computer Science and Artificial Intelligence Labs, MIT, Vision Medical Seminar, October 2005.

Conferences, Workshops, Symposia

- "Deep Learning in Medical Imaging", Cornell's UK Hub Launch Workshop, London, UK November 2022

- "Adaptive Compressed Sensing MRI with End-to-End Deep Learning," Keynote Talk at Machine Learning for Healthcare, Ann Arbor, August 2019

- "Functional Connectome Based Prediction: CNNs + Ensemble Learning," Medical Vision Workshop, Computer Vision and Pattern Recognition (CVPR), June 2019

- "Functional Connectome Based Prediction: CNNs + Ensemble Learning," CISS 2019, Baltimore, MD, March 2019

- **"**Probing the Genetic Underpinnings of Brain Morphology," Keynote Talk at Imaging Genomics Session of Pacific Symposium on Biocomputing, Hawaii, January 2018.

- "An Imaging Genetics Study of Alzheimer's Disease," The Functional and Structural Brain Networks Workshop at Bogazici University, Istanbul, Turkey, July 2016.

- "Probing the Genetic Underpinnings of Brain Structure in Healthy Subjects and Alzheimer's Disease Patients," Keynote Speech at UPenn Workshop on Imaging Genetics, February 2016.

- "Tutorial: Multivariate Methods on Imaging Genetics," First MICCAI Workshop on Imaging Genetics, Boston, September 2014.

- "The Relevance Voxel Machine: Bayesian image-based prediction," NIPS 2012 Workshop on Machine Learning and Interpretation in NeuroImaging, December 2012.

- "A Generative Model for Probabilistic Label Fusion of Multimodal Data," MICCAI 2012 Workshop on Multimodal Brain Analysis, October 2012.

Non-Academic Institutions

- "Beyond Supervised Learning for Biomedical Imaging," Siemens Healthineers, October 2019.

- "Graph theoretic image registration." Siemens Corporate Research, February 2005.

At Home Institution

- "Rapid, Efficient, and Robust Neuroimage Analysis with Deep Neural Networks", Department of Electrical Engineering, Institute for Computational Biomedicine, Weill Cornell, May 2018.

- "Novel computational tools to examine the genetic basis of brain structure and function", Seminar at Department of Radiology, Weill Cornell Medicine, March 2017.

- "Examining the genetic underpinnings of structural neuroimaging phenotypes." Science Bites, Massachusetts General Hospital, Charlestown Navy Yard Faculty Lunch Seminar Series, March 2015.

- "Machine Learning in (structural) Neuroimage Analysis: Issues and Promise." Invited Talk at BANG Seminar Series at Martinos Center for Biomedical Imaging, MGH/Harvard Medical School, March 2014.

- "Structural MRI markers of Alzheimer's Disease." Psychiatric Genetics and Translational Research Seminar, Massachusetts General Hospital, October 2011.

- "Multiple Atlases for Multiple Purposes." Center for the Study of Brain, Mind and Behavior, Princeton University, Dec 2007.

- "Spatial information in entropy based image registration: application to the human brain." Center for the Study of Brain, Mind and Behavior, Princeton University, Seminar Series on Data Processing Methods in Neuroscience, October 2004.

SERVICE ACTIVITIES

- **Cornell ECE Service:** Administered Q-exam for Linear Systems (April 2017, 2018, 2019), Cornell Tech ECE Faculty Search Committee Member (2018-2019, 2019-2020), Cornell Tech ECE Faculty Search Committee Chair (2020-2022), Cornell ECE Robotics Search (2019-2020), Cornell ECE Strategic Planning Committee (2020)

- **Cornell Engineering College:** Member of the College of Engineering Dean's Research Excellence Award Committee (2020)

- **Cornell University:** Reviewer on the Academic Integration Pilot Grants Study Section (2021)

- **Advisory Group Member of Cornell NeuroTech** (2018-present)

- **Founding Member of Organizing Committee:** Machine Learning in Medicine at Cornell (2017-present). Seminar series and one inter-campus workshop (September 2018)

- **External PhD Thesis Examiner** for the Rector of Erasmus University (September 2018)

- **Area Chair,** International Conference on Computer Vision and Pattern Recognition (CVPR), 2021

- **Organizing Committee Member,** Beyond MIC Workshop, Medical Image Computing and Computer Assisted Intervention (MICCAI) Conference, Granada, Spain, 2018

- **Organizing Committee Member**, Medical Image Computing and Computer Assisted Intervention (MICCAI) Conference, Quebec City, 2017

- **Organizing Committee Member**, Program Co-chair, Medical Image Computing and Computer Assisted Intervention (MICCAI) Conference, Istanbul 2016

- **Program Committee (PC) Member**, Medical Image Computing and Computer Assisted Intervention (MICCAI) Conference, 2012, 2013, 2014, 2015

- **Organizing Committee Member**, Workshop on Imaging Genetics at MICCAI 2014, MICCAI 2015.

- **Organizing Committee Member**, Machine Learning Challenge at MICCAI 2014.

- **Organizing Committee Member**, Workshop on Machine Learning and Interpretation in Neuroimaging at Neural Information Processing (NIPS) 2011.

- **Member of Editorial Board** of Medical Image Analysis (Impact Factor: 5.3+), 2017-present

- **Member of Editorial Board** of NeuroImage Journal (Impact Factor: 6.3+), 2018-2020.

- **Co-founder and Executive Editor** of Machine Learning for Biomedical Imaging (MELBA) Journal, 2020-present

- **Ad-hoc Reviewer** for Proceedings of National Academy of Sciences, Nature Biomedical Engineering, Bioinformatics, IEEE Transaction on Medical Imaging, IEEE Transactions on Image Processing, IEEE Transactions on Pattern Analysis and Machine Intelligence, NeuroImage, Medical Image Analysis, Alzheimer's and Dementia Journal, Archives of General Psychiatry, Cerebral Cortex, PLoS ONE, Neruobiology of Aging, Neuroinformatics, Brain Imaging and Behavior, and conferences such as MICCAI, IPMI, ISBI, CVPR, ICPR, among others.

- **Grant Reviewer** for Harvard Catalyst Advanced Imaging Pilot Research Grants and Concept Development Awards Program, 2013.

- **Grant Reviewer** for Alzheimer's Association Research Grant Program, 2016.

- **Grant Reviewer** for Alzheimer's Society Research Programme (UK), 2016.

- **Grant Reviewer (ad-hoc),** on NIH SPARC OT3 review panel, June 2017.

- **Grant Reviewer (ad-hoc),** for NSF CISE Big Data Spokes Panel – December 2017.

- **Grant Reviewer (ad-hoc),** on NIH NINDS Special Emphasis Panel for the review of BRAIN U24 and NINDS R24, June 2018.

- **Grant Reviewer (ad-hoc),** on NIH NIA Special Emphasis Panel, March 2019.

- **Grant Reviewer (ad-hoc),** on NIH NINDS Special Emphasis Panel for the review of BRAIN U24 and NINDS R24, March 2019.

- **Grant Reviewer (ad-hoc),** on NSF Career Award panel, November 2019

- **Grant Reviewer (ad-hoc),** on NIH CDMA Study Secton, October 2022
- **Member of Organizing Committee** of FreeSurfer Tutorial and Workshop, 2010-2012.

MENTORED STUDENTS AND FELLOWS

AT CORNELL

Post-doctoral Fellows

- Yingying Zhu (2017-2019) – Current Position: Assistant Professor of Computer Science and Engineering, University of Texas Arlington
- Adrian Dalca (2016-2019) – Current Position: Assistant Professor, Harvard Medical School; and Research Scientist, MIT
- Tian Ge (2014-2017) – Current Position: Assistant Professor, Harvard Medical School
- Heejong Kim (2021-Present)

PhD Students (As Primary Advisor)

- Meenakshi Khosla, Cornell ECE (2017-2021) - Next Position: Post-doc with Prof Nancy Kenwisher at MIT
- Evan Yu, Cornell BME (2016-2022) – Current Position: Senior ML Scientist, Digital Scopes
- Zhilu Zhang, Cornell ECE (2017-2022) – Next Position at Amazon Web Services
- Tianyu Ma, Cornell Physics (2019-2022) – Next Position at JP Morgan
- Gia H Ngo, Cornell ECE (2018-2022)
- Sijia Gao, Cornell ECE (2019-)
- Alan Q Wang, Cornell ECE (2019-)
- Cagla Bahadir, Cornell BME (2020-)
- Binh Minh Ngyuen, Cornell ECE (2021-)
- Xinzi He, Cornell BME (2021-)

PhD Committee Member (Minor)

- Thomas Conroy, Cornell ECE (2020-)
- Aaron LaViolette, Cornell BME (2020-)
- Hang Zhang, Cornell BME (2019-)
- Jianlin Zhou, Cornell ECE (2019-)
- Raisa Rasul, Cornell BME (2019-)
- Jiahao Li, Cornell BME (2018-)
- Jinwei Zhang, Cornell BME (2018-)
- Kursat Mestav, Cornell ECE (2018-2021) – Current Position: Systems Engineer for Machine Learning in Modem Design at Qualcomm
- Elvisha Dhamala, Weill Cornell Medicine Neuroscience (2018-2021) – Current Position: Post-doc with Prof Avram Holmes, Yale

- Emre Gonultas, Cornell ECE (2018-2021) – Next Position: Baseband System Developer at Ericsson

- Pengfei Qiao, Cornell Plant Biology (2017-2019) – Next Position: Senior Data Scientist, IBM

- Mohammad Haft-Javaherian, Cornell BME (2016-2019) – Current Position: Senior ML Scientist, Digital Scopes

Master of Science Students

- Carmen Khoo, Cornell BME (2019-2021) – Next Position: Research Data Analyst at Maine Medical Center Research Institute

- Cagla D Bahadir, Cornell BME (2017-2019) – Next Position: Deep Learning Scientist at Siemens Healthineers

Cornell Tech Masters Students – Team Projects

- Yiyun Wang, Aiden Sherry, Sidarth Wadwa (Health Tech Program 2021-22), Project title: "Automated Segmentation for the Mixed Reality Guidance System for Uterine Fibroid Surgery."

Master of Engineering Students

- Shicong Li, Cornell ECE MEng (2020)

- Shenghua Li, Cornell ECE MEng (2020)

- Amrut Sarangi, Cornell BME MEng, (2019)

- Hyeon Woo Lee, Cornell BME MEng (2019)

- Jiaxin Liu, Cornell ECE MEng (2019)

- Yiming Yan, Cornell ECE MEng (2019)

- Yuqing Shou, Cornell ECE MEng (2019)

- Jin Cui, Cornell ECE MEng (2019)

- Yuqi Hong, Cornell ECE MEng (2019)

- Rongguang Wang, Cornell ECE Meng (2018)

Undergraduate Students

- Jeremy Tsai (UCLA CS '23) – NeuroNex REU Summer Internship 2021

- Leo Moon (CS '22)

- Victor Butoi (CS '22) – Next Position: Incoming PhD student at MIT EECS

- Amaya Murguia (ECE '21) – Next Position: PhD Student at University of Michigan EECS

- James Redd (CS'18) – Current Position: Flight Software Engineer at Relativity Space

- Raymond Xu, Cornell ECE Bachelors/MEng (2018) – Current Position: Machine Learning Software Engineer at Google

PRIOR TO CORNELL

- Serdar Kemal Balci, CSAIL, MIT, 2006-2007 (My role: unofficial mentor of graduate student)

- Ulas Ziyan, CSAIL, MIT, 2006-2008 (My role: Unofficial mentor of graduate student)

- Michal Depa, CSAIL, MIT, 2006-2008 (My role: Unofficial mentor of graduate student)

- Jorge Bernal-Rusiel, Martinos Center, MGH/HMS, 2011-2013 (My role: Primary Post-doc Mentor, Current Position: Software Engineer at Boston's Children Hospital)

- Juan Eugenio Iglesias, Martinos Center, MGH/HMS, 2011-2013 (My role: Secondary Post-doc Mentor, Current Position: ERC Senior Research Fellow at University College London)

- Luke Gang, Martinos Center, MGH/HMS, 2014-2015 (My role: Primary Mentor of Visiting Researcher, Current Position: Faculty Member, Shanghai University of Electrical Power)

- Tian Ge, Martinos Center, MGH/HMS 2014-2017 (My role: Primary Post-doc Mentor, Current Position: Instructor at Harvard Medical School)

- Adrian Dalca, CSAIL, MIT 2015-2018 (My role: PhD Dissertation Committee Member and Primary Post-doc Mentor)