Mo Shahdloo

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Academic Experience

Research

2020-present Postdoctoral Researcher, FMRIB Centre/University of Oxford.

2014–2020 Graduate Researcher, ICON Lab/Bilkent University.

Teaching

2020-present **Tutor**, FMRIB Graduate Course, University of Oxford.

2014–2020 Teaching Assistant, EE Department, Bilkent University.

Education

Jan 2017 Ph.D., Bilkent University, Ankara/Turkey, Electrical and Electronics Engineering Department.

Feb 2020 Electrical and Electronics Engineering

Advisor: Tolga Cukur

Dissertation title: Optimization and Machine-Learning in MRI: Applications in Rapid MR Image Reconstruction and Encoding Models of Cortical Representations

Sep 2014 M.Sc., Bilkent University, Ankara/Turkey, Electrical and Electronics Engineering Department.

Dec 2016 Electrical and Electronics Engineering

Advisor: Tolga Çukur

Sep 2007 B.Sc., Amirkabir University of Technology, Tehran/Iran, Electrical Engineering Department.

Jun 2011 Electrical Engineering/Control Engineering

Advisor: Behzad Samadi

Publications

Articles

- [6] I. Kiremitci, O. Yilmaz, E. Celik, M. Shahdloo, A. G. Huth, and T. Çukur, "Attentional Modulation of Hierarchical Speech Representations in a Multi-Talker Environment," Cerebral Cortex, Jun. 2021. DOI: 10.1093/cercor/bhab136.
- [5] M. Shahdloo, E. Çelik, B. A. Urgen, J. L. Gallant, and T. Çukur, "Task-Dependent Warping of Semantic Representations During Search for Visual Action Categories," biorxiv, Jul. 2021. DOI: 10.1101/2021.06.17.448789.
- [4] S. U. H. Dar, M. Yurt, M. Shahdloo, E. Ildiz, B. Tinaz, and T. Çukur, "Prior-Guided Image Reconstruction for Accelerated Multi-Contrast MRI via Generative Adversarial Networks," IEEE Journal of Selected Topics in Signal Processing, vol. 14, no. 6, pp. 1072–1087, Oct. 2020. DOI: 10.1109/JSTSP.2020.3001737.
- [3] M. Shahdloo, E. Çelik, and T. Çukur, "Biased competition in semantic representation during natural visual search," *NeuroImage*, vol. 216, no. 1, p. 116383, Aug. 2020. DOI: 10.1016/j.neuroimage.2019.116383.
- [2] M. Shahdloo, E. Ilicak, M. Tofighi, E. U. Saritas, A. E. Cetin, and T. Çukur, "Projection onto Epigraph Sets for Rapid Self-Tuning Compressed Sensing MRI," *IEEE Transactions on Medical Imaging*, vol. 38, no. 7, pp. 1677–1689, Jul. 2019. DOI: 10.1109/TMI.2018.2885599.

[1] S. U. H. Dar, M. Yurt, M. Shahdloo, and T. Çukur, "Synergistic Reconstruction and Synthesis via Generative Adversarial Networks for Accelerated Multi-Contrast MRI," arxiv, 2018. eprint: 1805.10704v1.

Peer Reviewed Conference Publications

- [9] D. Papp, U. Schüffelgen, M. Shahdloo, et al., "Imaging performance of a multi-channel non-human primate coil," in ISMRM, Online, May 2021, p. 3224.
- [8] M. Shahdloo, D. Papp, U. Schüffelgen, K. Miller, M. Rushworth, and M. Chiew, "Highly accelerated fMRI of awake behaving non-human primates via model-based dynamic off-resonance correction," in *ISMRM*, Online, May 2021, p. 257.
- [7] S. U. H. Dar, M. Yurt, M. Shahdloo, and T. Çukur, "Joint recovery of variably accelerated multi-contrast mri acquisitions via generative adversarial networks," in *ISMRM*, Montreal, Jun. 2019, p. 0666.
- [6] M. Shahdloo, M. Acar, and T. Çukur, "Attention during story listening modulates temporal receptive windows across human cortex," in *CCN*, Berlin, Sep. 2019, PS-1A.52.
- [5] M. Shahdloo and T. Çukur, "Trade-off between fat-suppression and partial-voluming in weighted combination alternating repetition-time (ATR) balanced SSFP," in *ESMRMB*, Rotterdam, Oct. 2019, p. L06.09.
- [4] M. Shahdloo, B. Ürgen, E. Çelik, and T. Çukur, "Attention to action categories shifts semantic tuning toward targets across the brain," in *OHBM*, Rome, Jun. 2019, T661.
- [3] M. Shahdloo, E. Ilicak, M. Tofighi, E. U. Saritas, A. E. Cetin, and T. Çukur, "Rapid self-tuning compressed-sensing MRI using projection onto epigraph sets," in *ISMRM*, Paris, Jun. 2018, p. 0251.
- [2] M. Shahdloo and T. Çukur, "Biased competition in semantic representations during category-based visual search," in *OHBM*, Vancouver, Jun. 2017.
- [1] M. Shahdloo, E. Ilicak, M. Tofighi, E. U. Saritas, A. E. Cetin, and T. Çukur, "Adaptive wavelet thresholding for profile-encoding reconstruction of balanced steady-state free precession acquisitions," in *ESMRMB*, Barcelona, Oct. 2017.

Invited Talks

- 2021 Voxelwise modelling: unraveling natural perception, NeuroTRACT symposium, online
- 2020 Mapping language representation in the brain using deep models, 7th Iranian Human Brain Mapping Congress, *online*
- 2019 Biased competition in semantic representations during visual search, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan

Honors and Awards

- $2014\hbox{--}2021$ Full scholarship granted by Bilkent University for graduate studies
 - 2012 Ranked 28th among 100k participants in Iranian national higher education examination
 - 2006 Bronze medal in the Iranian National Physics Olympiad

Community Service

Editorial Frontiers in Neuroscience

board OHBM Aperture

Ad-hoc IEEE Transactions on Medical Imaging

reviewing ISMRM

Conference on Cognitive Computational Neuroscience (CCN)

Scientific Organization Memberships

- International Society for MR in Medicine Organization for Human Brain Mapping (ISMRM) (OHBM)
- European Society for MR in Medicine and Biology (ESMRMB)

Experience in Industry

- 2014-2014 Hardware developer, Farineh Fanavar, Tehran, Iran.
- 2013-2014 Senior software developer, K.A.G., Tehran, Iran.
- 2011-2013 RnD Engineer, Kerman Tablo, Tehran, Iran.

References

- Dr. Mark Chiew,
 FMRIB Centre, University of Oxford,
 mark.chiew@ndcn.ox.ac.uk
- Dr. Tolga Çukur,
 EEE Dept. and UMRAM, Bilkent University,
 cukur@ee.bilkent.edu.tr