Shiva Farashahi
Curriculum Vitae
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Flatiron Institute,
Simons Foundation,
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EMPLOYMENT
Flatiron Research Fellow, Neuroscience group   10/2019-present
Center for Computational Biology, Flatiron Institute, Simons Foundation, NY, USA

EDUCATION
Ph.D. in Psychological and Brain Sciences   9/2014-8/2019
Department of Psychological and Brain Sciences, Dartmouth College, NH, USA

Methods in Computational Neuroscience course   7/2018-8/2018
Marine Biology Laboratory, MA, USA

M.S. in Biomedical Engineering   9/2011-6/2013
School of ECE, University of Tehran, Tehran, Iran

B.S. in Control systems Engineering   9/2007-9/2011
Department of EE, Ferdowsi University of Mashhad, Khorasan, Iran

PUBLICATIONS
Peer-reviewed Publications

7. **Farashahi S**, Donahue C, Hayden B, Lee D, Soltani A (2019) Flexible combination of reward information across primates. *Nature human behaviour*, 3(11), 1215-1224.

6. **Farashahi S**, Azab H, Hayden B, Soltani A (2018). On the flexibility of basic risk attitudes in monkeys. *Journal of Neuroscience*, 38(18), 4383-4398.

5. **Farashahi S**, Ting CC, Kao CH, Wu SW, Soltani A (2018) Dynamic combination of sensory and reward information under time pressure. *PLOS Computational Biology*, 14(3):e1006070.

4. **Farashahi S**, Rowe K, Aslami Z, Gobbini MI, Soltani A (2018). Influence of learning strategy on response time during complex value-based learning and choice. *PLOS ONE*, 13(5):e0197263.

3. **Farashahi S**, Rowe K, Aslami Z, Lee D, Soltani A (2017). Feature-based learning improves adaptability without compromising precision. *Nature Communications*, 8(1), 1-16.

2. **Farashahi S**, Seo H, Donahue C, Lee D, Soltani A (2017). Metaplasticity and Choice under Uncertainty. *Neuron*, 94(2), 401-414.

1. Soltani A, Khorsand P, Guo CZ, **Farashahi S**, Liu J (2016). Neural Substrates of Cognitive Biases during Probabilistic Inference. *Nature Communications*, 7(1), 1-14.

Book Chapters

1. Bahrami F, **Farashahi S** (2017), How Do We Navigate Our Way to Places?. *Computational Models of Brain and Behavior*, 357-372.

CONFERENCE POSTERS

12. **Farashahi S**, Nomof V, Aslami Z, Soltani A, Learning from reward feedback in high-dimensional environments, SfN, San Diego, USA, Nov 3-7, 2018.

11. **Farashahi S**, Rowe K, Aslami Z, Gobbini MI, Soltani A, Pattern of response time reveals the construction of reward value during adaptive learning and choice, SfN, Washington DC, USA, Nov 11-15, 2017.

10. **Farashahi S**, Rowe K, Aslami Z, Lee D, Soltani A, Removing the curse of dimensionality: a trade-off between adaptability and precision, SfN, San Diego, USA, Oct 12-16, 2016.

9. P. Khorsand, **Farashahi S**, Soltani A, Adaptability-precision trade off: a metaplasticity study, SfN, San Diego, USA, Oct 12-16, 2016.

8. **Farashahi S**, Rowe K, Aslami Z, Lee D, Soltani A Hierarchical selection, reward-dependent metaplasticity, and choice under uncertainty, CoSyNe, Salt Lake City, USA, Feb 25-28, 2016.

7. Chu E, Harris L, Lee V, **Farashahi S**, Soltani A, Influence of value-dependent endogenous signals on saccadic choice, SfN, Chicago, USA, Oct 17-21, 2015.

6. **Farashahi S**, Seo H, Lee D, Soltani A, Metaplasticity and choice under uncertainty, CoSyNe, Salt Lake City, USA, Mar 4-8, 2015.

5. **Farashahi S**, Lienard J, Ingram S, Dimitrov A, Model of dynamics of intracellular chloride based on fluorescent imaging, CNS, Quebec City, Canada, 2014.

4. Mohammadi M, **Farashahi S**, Mahdavi A, Bahrami F, Allocentric Spatial Navigation Impairment in Schizophrenic Subject: A Model-based Study, ICEE, Tehran, Iran, May 10-14, 2015.

3. **Ghaani-Farashahi S**, Bahrami F, Modeling Alzheimer's disease deficits in place field representation, ICIS, Tehran, Iran, Feb 26-28, 2013.

2. **Ghaani-Farashahi S**, Bahrami F, Does Deficits in Place Field Formation Cause Spatial Navigation Impairment in Alzheimer's Disease?, ICBME, Tehran, Iran, Dec 18-20, 2013.

1. **Ghaani-Farashahi S**, Bahrami F, Modeling place field formation considering recurrent connections in CA3 and STDP, ICEE, Mashhad, Iran, May 14-16, 2013.

INVITED TALKS	Flatiron Institute, Simons Foundation, NY	11/2018
	Center for Neural Science, NYU, NY	10/2018
	Society for Neuroscience (SfN), Nano-Symposium, IL	10/2015

MEMBERSHIPS AND AWARDS	Reviewer of NeuroImage Journal	1/2020-present
	Reviewer of CoSyNe conference	2019-present
	Reviewer of PLOS Computational Biology Journal	11/2018-present
	Marie A. Center Award for Excellence in Research ($500)	6/2018
	Neukom prize for outstanding graduate research ($750)	6/2017
	Dartmouth College Fellowship grant	09/2014-09/2019
	Merit abstract award at 21st Iranian Conf. Electrical Engineering ($200)	5/2013
	Society for Neuroscience member	09/2014-present
	IEEE student member	9/2007-9/2011

RESEARCH EXPERIENCE

Machine/Statistical Learning: Regression, Generalized Linear Mixed Effects, Bayesian Statistics, Reinforcement Learning, Deep Learning, Clustering, Dimension Reduction

Optimization Methods: Genetic Algorithm, Particle Swarm Optimization, Ant Colony Optimization, Game theory, ANFIS

Computational Neuroscience: Biological neural modeling, Generalized linear models of neural spike data, fMRI data analysis, eye-tracking hardware and software (EyeLink)

PROGRAMMING SKILLS

C/C++, Python, R, MATLAB, Bash
Neuron, XPPAUT
psychtoolbox
PSpice, LABVIEW, Protel, Proteus, ORCAD, CodeVision AVR, Bascom AVR

TEACHING EXPERIENCE	Experimental Design and Methodology	Fall 2017
	Systems Neuroscience with Laboratory	Spring 2016
	Introduction to Neuroscience	Winter 2015
	Probability and Statistics	Spring 2014
	Dynamical Systems in Neuroscience	Spring 2013