Jasmine Collins

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Education

University of California Berkeley — *Berkeley, CA*

Pursuing Ph.D. in Computer Science — *Aug 2017 - present*

University of Pittsburgh — *Pittsburgh, PA*

B.S. in Computer Science and Neuroscience, minor in Chemistry (Graduated summa cum laude) — *Aug 2012 - May 2016*

Work/Research Experience

Google Brain — *Mountain View, CA*

Google Brain Resident — *Jun 2016 - Aug 2017*

- Investigated tradeoffs between different recurrent neural network architectures
- Improved deep learning techniques for inferring latent dynamics from neural spiking data

Koes Group — *Pittsburgh, PA*

Undergraduate Researcher — *Aug 2015 - May 2016*

- Used machine learning methods such as linear and logistic regression, as well as convolutional neural networks to predict drug binding for protein targets of interest

Computational Biology Department (University of Pittsburgh) — *Pittsburgh, PA*

Software Engineer — *Jan 2015 - Oct 2015*

- Improved 3Dmol.js, a JavaScript library for molecular visualization, by implementing several user-requested features such as symmetry support and animated models

Early Neural Reward Lab — *Pittsburgh, PA*

Undergraduate Researcher — *Aug 2014 - Sept 2015*

- Investigated the effects of maternal depression on child reward processing via behavioral questionnaires, saliva sampling of neuroendocrine function, and fMRI scans

Peer-Reviewed Publications

J. Collins, J. Sohl-Dickstein, and D. Sussillo. Capacity and trainability in recurrent neural networks. *International Conference on Learning Representations (ICLR)*, 2017.

J. Sunseri, M. Ragoza, **J. Collins**, & D. R. Koes. A D3R prospective evaluation of machine learning for protein-ligand scoring. *Journal of Computer-Aided Molecular Design*, 2016.

Conference Posters/arXiv Papers

C. Pandarinath, **J. Collins**, R. Jozefowicz, S.Stavisky, J. Kao, M. Churchland, M. Kaufman, S. Ryu, J. Henderson, K. Shenoy, L. Abbott, and D. Sussillo. Precise estimates of single-trial dynamics in motor cortex using deep learning techniques. *Poster at Computational and Systems Neuroscience (COSYNE)*, 2017.

A. Busia, **J. Collins**, and N. Jaitly. Protein secondary structure prediction using deep multi-scale convolutional neural networks and next-step conditioning. *arXiv preprint arXiv:1611.01503*, 2016.

J. Collins, M. Ragoza, J. Jensen, and D. Koes. 3Dmol.js: 3D structure visualization for the modern web. *Poster at 251st American Chemical Society National Meeting & Exposition*, 2016.

M. Ragoza, **J. Collins**, N. Bastola, and D. Koes. Convolutional neural networks for protein-ligand scoring. *Poster at 251st American Chemical Society National Meeting & Exposition*, 2016.

J. Collins, C. Osterritter, and J. Morgan. Effect of reward seeking behavior on neural activation in response to reward. *Poster at University of Pittsburgh Undergraduate Research Fair*, 2015.

Awards

2017 **NSF Graduate Research Fellowship Program**, Three years of support for graduate study for students who have demonstrated potential for significant achievements in science and engineering

2017 **Berkeley EECS Excellence Award**, Award for incoming graduate students with outstanding undergraduate academic record

2016 **NCWIT Collegiate Award**, Award for college women with outstanding technical accomplishments that demonstrate a high level of creativity and potential impact

2016 **NetApp Systems Research Award**, Funding for students to complete research in the area of computer systems

2016 **SGB Conference Travel Grant**, Travel grant for undergraduate students who are authors on accepted conference posters/papers