

ANDREW JONES

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EDUCATION

Princeton University • Princeton, NJ PhD, <i>Computer Science</i> Advisor: Barbara Engelhardt	2019 – present
Brown University • Providence, RI MSc, <i>Computer Science</i>	2016 – 2017
Brown University • Providence, RI BSc, <i>Neuroscience</i>	2012 – 2016

RESEARCH

Graduate Research Assistant – Princeton University Princeton, NJ	2019 – Present
<ul style="list-style-type: none">• Currently developing statistical and machine learning tools to analyze high-dimensional genomic data.	
Associate Computational Biologist – Broad Institute of MIT and Harvard Cambridge, MA	2018 – 2019
<ul style="list-style-type: none">• Built statistical tools to study the transcriptional patterns of cancer cells that are targeted by small molecule therapies, resulting in a first-author manuscript and a conference presentation.• Other projects included analyzing drug-perturbed single-cell RNAseq data (coauthor on manuscript) and a project building a computational tool to align the transcriptomes of cancer cell lines and patient tumors (coauthor on manuscript).	
Graduate Research Assistant – Brown University Providence, RI	2016 – 2017
<ul style="list-style-type: none">• Developed computer vision models for analyzing the eye gaze patterns of children with Autism Spectrum Disorder, resulting in a Master's Report paper.	
Undergraduate Research Assistant – Brown University Providence, RI	2014 – 2016
<ul style="list-style-type: none">• The BrainGate lab develops brain-computer interfaces (BCIs) for patients with tetraplegia, with the aim of restoring these patients' communication and mobility• Created a tool to improve the patients' control of the speed of a computer cursor while using the BCI, and shared my findings in my undergraduate honors thesis.	

TEACHING AND LEADERSHIP

Teaching Assistant – COS126 (Intro. Computer Science), Princeton University	Fall 2020
Undergraduate Research Mentor – Princeton University	2020 – Present
Research Mentor – Broad Institute Summer Scholars Program	Summer 2018
Lead TA – Computational Vision, Brown University	Fall 2015
Meiklejohn Peer Advisor – Brown University	2013-2016

AWARDS AND FELLOWSHIPS

Broad Institute Travel Award	2018
Neuroscience Honors, Brown University	2016
Sigma Xi Honor Research Society	2016
Undergraduate Teaching and Research Award	2015

PUBLICATIONS, PREPRINTS, AND ABSTRACTS

- **Jones, Andrew**, Aviad Tsherniak, and James M. McFarland. "Post-perturbational transcriptional signatures of cancer cell line vulnerabilities." *BioRxiv* (2020).
- Warren, Allison, **Andrew Jones**, Tsukasa Shibue, William C. Hahn, Jesse S. Boehm, Francisca Vazquez, Aviad Tsherniak, and James M. McFarland. "Global computational alignment of tumor and cell line transcriptional profiles." *BioRxiv* (2020).
- McFarland, James M., et al. "Multiplexed single-cell transcriptional response profiling to define cancer vulnerabilities and therapeutic mechanism of action." *Nature Communications* 11.1 (2020): 1-15.

- **Jones, Andrew**, James McFarland, Mustafa Kocak, Aavid Tsherniak. "Predicting small molecule mechanism of action from transcriptional profiles using deep neural networks." Deep Learning to Accelerate Drug Discovery (2018).
- **Jones, Andrew**, Thomas Serre. Computational modeling of visual saliency and attention in the Smart Playroom. 2017 Computer Science Master's Paper (2018).
- Warren, David E., Matthew J. Sutterer, Joel Bruss, Taylor J. Abel, **Andrew Jones**, Hiroto Kawasaki, Michelle Voss, Martin Cassell, Matthew A. Howard, and Daniel Tranel. "Surgically disconnected temporal pole exhibits resting functional connectivity with remote brain regions." bioRxiv (2017): 127571.
- **Jones, Andrew**, Daniel Milstein, Leigh Hochberg, Beata Jarosiewicz. "Inferring intended speed from curvature as a means to improve decoding in brain-computer interfaces for people with paralysis." Neuroscience Honors Thesis (2016).

TALKS

- Predicting small molecule mechanism of action from transcription (2018). Broad Institute/Dana Farber Cancer Program Meeting).
- TensorFlow Tutorial (2018) Broad Institute, Cancer Data Science. I organized and led a full-day TensorFlow tutorial and workshop.

EMPLOYMENT

Data Science Intern – AthenaHealth	Summer 2017
Graduate Researcher – Broad Institute of MIT and Harvard	Summer 2016
Undergraduate Researcher – University of Iowa, Dept. of Neurology	Summers 2014, 2015