Jonathan Nicholas

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Education

2011 – 2015 **Brown University**, Providence, RI
- BS Cognitive Neuroscience with Honors
- Thesis: The temporal dynamics of working memory filtration
- Advisor: David Badre

2007 – 2011 **Turner Ashby High School**, Bridgewater, VA
- Valedictorian

Research Experience

2015 – Now **Stanford Cognitive and Systems Neuroscience Lab**, Stanford University
Methods Research Assistant (Full Time)
- Methods development for network analysis of fMRI
- Bayesian and biologically-inspired modeling
- Web infrastructure development for ongoing studies
- In-house data analysis script maintenance and development

2013 – 2015 **Cognitive Control and Memory Lab**, Brown University
Research Assistant
- Designed and conducted multiple experiments
- Performed statistical analysis of data and presented findings
- Developed a hierarchical Bayesian computational model

Teaching Experience

Spring 2015 **CLPS1291 Computational Cognitive Science**, Brown University
Teaching Assistant for Professor Thomas Serre

Awards and Honors

2015 **Kling Premium in Psychology**, Brown University
Sigma Xi, Brown University
2014 **Karen T. Romer Undergraduate Teaching and Research Award**, Brown University
First Place Neural Decoding Competition, Brown Institute for Brain Sciences

Publications

Journals

2016 Ryali, S., Supekar, K., Chen, T., Kochalka, J., Cai, W., **Nicholas, J.**, Padmanabhan, A., Menon, V., (2016) Temporal dynamics and developmental maturation of salience, default and central-executive network interactions revealed by variational Bayes hidden Markov modeling. PLOS Computational Biology. In Press.
Chang, T., Iuculano, T., **Nicholas, J.**, Metcalfe, A., Menon, V. (2016) Computational modeling of weak dynamic neural tuning in children with mathematical learning disabilities. In Prep.

Posters

2016 **Nicholas, J.**, Supekar, K., Menon, V. (2016) Natural language processing of fMRI reveals cognitive learning induced changes in brain circuit dynamics. Fourth Annual Flux Congress, St. Louis, MO.
2014 **Nicholas, J.**, Chatham, C., Badre, D. (2014) The temporal dynamics of working memory filtration. 2014 Brown Summer Research Symposium, Providence, RI.

Technical Skills

Proficient in Python, Matlab, Javascript
Competent in R, SQL, Bash, Git, HTML/CSS, Photoshop, Inkscape