# Andrew Heusser

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# **FDUCATION**

## **NEW YORK UNIVERSITY**

PhD in Cognitive Neuroscience

Grad. July 2016 | New York, NY My research utilized neuroimaging and computational models to understand human learning and memory

#### NORTHEASTERN UNIVERSITY

BS IN PSYCHOLOGY

Grad. May 2008 | Boston, MA

# LINKS

Github://andrewheusser LinkedIn://andrew-heusser Twitter://@andyheusser Facebook://andrew.heusser

# COURSEWORK

### **GRADUATE**

Computational Modeling of Cognition Math Tools for Neuroscientists Learning & Memory Perception Cognitive Neuroscience Neuroanatomy

#### ONLINE

Coursera Deep Learning Specialization Machine Learning

Javascript: Understanding the Weird Parts

Learn and Understand AngularJS Learn and Understand NodeJS Angular 2 with Typescript

# PROGRAMMING

Proficient:

Python • JavaScript • Matlab Shell • LETEX • HTML • CSS

Familiar:

Arduino • Processing • SQL

# SOFTWARE

Lead developer:

HyperTools • Quail • SuperEEG Contributor:

Pliers • JsPsych

## **EXPERIENCE**

## **DARTMOUTH COLLEGE | POSTDOCTORAL FELLOW**

July 2016 - present | Hanover, NH

- Integrating computational models, machine learning, and data (neural and behavioral) to optimize human learning efficiency.
- Leading development of open-source software for data analysis and data visualization.

## **OPENBCI** | RESEARCH SCIENTIST / SOFTWARE ENGINEER

Aug 2015 – June 2016 | Brooklyn, NY

- Lead the development of an open-source software platform for stimulus presentation and data collection in a web browser designed for behavioral and EEG research.
- Advised on the development of hardware/software for neuroscientific research applications.

## **UCDAVIS** | JUNIOR SPECIALIST

Aug 2008 - Aug 2011 | Davis, CA

- Designed and conducted EEG study examining neural correlates of memory for temporal context.
- Used fMRI to investigate the brain areas involved in the maintenance of abstract rules.
- Administration and maintenance of a local linux-based network.

## FREELANCE | Web / OPEN-SOURCE SOFTWARE DEVELOPER

2007 - present | Newburyport, MA

- I design websites for people and small businesses.
- I create open-source software for data analysis and data visualization.
- I program full-stack JavaScript web applications for fun.

## SELECTED PUBLICATIONS

**Heusser AC,** Ziman K, Owen LW, Manning J (Accepted). HyperTools: A Python toolbox for gaining geometric insights from high-dimensional data. **Journal of Machine Learning Research** 

**Heusser AC**, Fitzpatrick PC, Field CE, Ziman K, Manning J (In press). Quail: A Python toolbox for analyzing and plotting free recall data **Journal of Open Source Software Heusser AC**, Ezzyat Y, Shiff L, Davachi L (In press). Perceptual boundaries cause mnemonic trade-offs between local boundary processing and across-trial associative binding **JEP:LMC** 

**Heusser AC,** Poeppel D, Ezzyat Y, Davachi L (2016). Episodic sequence memory is supported by a theta/gamma phase code. **Nature Neuroscience Heusser AC,** Awipi T, Davachi L (2013). Repetition-related modulation of the

perirhinal cortex predicts conceptual priming. **Neuropsychologia** 

# **AWARDS**

- 2013 Bennet B. Murdock Student Research Award
- 2013 NSF Graduate Research Fellowship Honorable Mention
- 2012 NSF Graduate Research Fellowship Honorable Mention
- 2008 Joseph Armington Memorial Award in Physiological Psychology Research
- 2007 Northeastern Provost Undergraduate Research Award