Daniel Birman

danbirman.com
danbirman@gmail.com | 607.342.2612

EDUCATION

Stanford University
PhD Student in Psychology
Conc. in Cognitive Neuroscience

Cornell University
BA in Biology, May 2014
Cum. GPA: 3.62
Conc. in Neurobiology

EXAM SCORES

GRE - Q170/V167/W5.0
Nov 2012

SAT - M780/R760/W750
June 2007

COURSEWORK

Calculus • Statistics • Biology • Neurobiology • Physics • Chemistry • Organic Chemistry • Biochemistry • Object-Oriented Programming • Functional Programming • Artificial Intelligence • Psychology • Genetics

SKILLS

Programming
• Python
• Java
• R
• MATLAB

Languages
• Fluent in French
• Conversational in German

Neuroscience
• EEG and fMRI Recording and Analysis
• Multivariate Decoding
• Machine Learning Algorithms

TEACHING EXPERIENCE

Cornell Outdoor Education
Instructor **2009 - 2012 | Ithaca, NY**

- Instructed College students in technical outdoor skills, including Rock Climbing and Winter Camping

Cornell Team and Leadership Center
Lead Facilitator **2009 - 2012 | Ithaca, NY**

- Lead college students and staff through team-building programs
- Worked with groups of facilitators to design unique team-building programs to match client needs

CS 2110 - Object Oriented Programming
Undergraduate Tutor **2009 - 2010 | Ithaca, NY**

- Instructed undergraduate students in Java programming.

RESEARCH

Vision & Perception Lab
Graduate Researcher **2014 – Present | Stanford, CA**

- Using brain imaging and machine learning encoding techniques to investigate the neural basis of perception.

Haynes Neuroimaging Lab
Visiting Researcher **2012 – 2013 | Berlin, Germany**

- Developed an algorithm based on brain-computer interfacing principles to predict and interrupt intentions using EEG signals processed in real-time.
- Studied whether participants, placed in a feedback loop where their intentions were interrupted, would be able to modify their observable brain activity, and thus indirectly their predictability.
- Explore the brain regions involved in representing 'response rules'.

Computational Physiology Lab
Undergraduate Researcher **2012 – 2013 | Ithaca, NY**

- Collected data to develop a model of rat behavior as Bayes optimal observers within an complex olfactory environment.
- Studied the role played by BDNF in the consolidation of short term memory within olfactory bulb neurons.
- Obtained data to evaluate a predictive model of memory consolidation for a mouse olfactory generalization task.