Rory Flemming

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Education

University of Pittsburgh**,** Pittsburgh, PA, USA
B.Sc. Neuroscience with Honors April 2017
B.Sc. Psychology – cognitive and health psychology emphasis April 2017
Minors: Chemistry, Bioengineering – signals and systems analysis, applied to neural systems
Honors College Courses: Quantitative Neuroscience Systems, Neurophysiology, Bio/Health Psychology of Socioeconomic Status and Health Disparities, Introduction to Neuroscience, Human Physiology
GPA: 3.59 cumulative, 3.78 Neuroscience, 3.63 Psychology

Academic Publications & Posters

"Striatal action-competition framework accounts for decisions in perceptually uncertain motor gambles." **Flemming, R.** Undergraduate Honors Thesis. Department of Neuroscience, University of Pittsburgh, 2017. (PDF)
"Sensory uncertainty impacts avoidance during spatial decisions." Jarbo, K., **Flemming, R.**, Verstynen, T. D. (under review at *Journal of Vision*) (preprint)
"Sensory Uncertainty Influences Value-based Risky Decisions." **R. Flemming**, K. Jarbo & T. Verstynen, Abs. Society for Neuroscience, 2016. (PDF)
"Highway from the Danger Zone: Interactions between uncertainty and cost in spatial estimation." K. Jarbo, **R. Flemming** & T. Verstynen, Abs. Society for Neuroscience, 2014. (PDF)

Professional Experience

Research Associate 2013–Present
Cognitive Axon Lab (PI: Timothy Verstynen, PhD), Carnegie Mellon University, Pittsburgh, PA, USA
Conducted funded human behavioral study in Sensory Uncertainty and Spatial Decision-making
- Developed hypothesis on how people make value-based decisions using sensory uncertainty
- Designed sensorimotor decision-making experiment, and acquired research award
- Recruited participants, ran experiments, and managed demographics and experimental data
- Used MATLAB to conduct statistical analyses of behavioral psychophysics data
- Presented behavioral data in poster at Society for Neuroscience 2016
- Fitted hierarchical drift-diffusion models for insight into decision processes

Measure of success: Ability to synthesize results with literature in undergraduate thesis, aiming for publication
Organized and presented at weekly lab meetings, journal clubs, and social events
Conducted targeted literature searches of psychology, neuroscience, and bioengineering journals

Peer Educator (Volunteer) 2015 - Present
Stress Free Zone (SFZ), University of Pittsburgh, Pittsburgh, PA, USA
Led outreach aimed to introduce students to evidence-based stress-reduction/management techniques
Provided tours and instruction on SFZ tools and services (e.g. Heart Rate Variability Biofeedback)
Staffed special events on University of Pittsburgh campus (e.g. Mental Health Awareness Week)
Actively participated in activities focused on personal and team development

Skills

Programming: MATLAB, Python: experimental design, behavioral and neural data analysis, computational modeling (e.g. computer vision, spike sorting, behavioral and neural analysis of movements, brain-computer interface (BCI) continuous and discrete decoding) (GitHub)
CITI-certified, IRB-approval experience in collection of human psychology/behavioral data

Teaching Experience

Honors College Introduction to Neuroscience (NROSCI 1003), Anne-Marie Oswald, University of Pittsburgh Spring 2015
Duties: Teaching assistant, fellowship project, led recitation sessions, weekly journal club, office hours

Academic Honors and Fellowships

University Honors College (UHC) Off-Campus Research Award - Summer 2015
Chancellor's Undergraduate Teaching Fellow - Spring 2015 - UHC Intro to Neuroscience
Dean's Honor List, Dietrich School of Arts and Sciences: Fall 2013, '15, '16 & Spring 2014, '16

Personal Interests/ Goals (1-2 years)

Developing a stronger data science and machine learning foundation for neural and behavioral analyses
Gaining experience and familiarity with cutting-edge domains of neuroscience, psychology, health, and data science

Further details and references available upon request