Thomas Morin

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OBJECTIVE

To obtain a PhD. in a Neuroscience, Medical Engineering, or another field related to neuroimaging.

EDUCATION

B.S., Cognitive and Brain Science, Computer Science May 2017
Tufts University, Medford, MA
GPA: 3.70/4.0

ACADEMIC HONORS

- Dean's List (5/6 semesters)
- Psi Chi Honor Society
- Recipient: 2016 Tufts Career Center Summer Internship Grant

COMPUTER SKILLS

Operating Systems

- Proficient in Unix, Mac OS, and Windows

Languages

- Fluent in C, C++, Python, Bash

Software

- Proficient in MATLAB, FSL, Mango, and SPSS
- Some experience with PMOD (PET Kinetic Modeling) and Assembly (Intel)

Key Concepts

- Kinetic Modeling for PET
- Brain Functional Connectivity Analysis
- Basic Machine Learning

RESEARCH EXPERIENCE

Hooker Research Group, A. A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School April 2015 - Present

Memory and Cognition Lab, Department of Psychology, Tufts University May 2014 – May 2015

PUBLICATION

Placzek, M. S., Zhao, W., Wey, H. Y., **Morin, T. M.**, & Hooker, J. M. (2015). PET neurochemical imaging modes. *Seminars in Nuclear Medicine*, 46(1), 20-27 http://dx.doi.org/10.1053/j.semnuclmed.2015.09.001

PRESENTATION

Morin, T. M. Creating a Computer Simulation Tool for PET Neuroimaging. *Tufts University Undergraduate Research and Scholarship Symposium*. 2016. Medford, MA.

PROJECTS

Do Prescription Opioid Drugs Modulate Functional Connectivity in Non-Human Primate Brains?

Using Hidden Markov Models to Characterize Resting State Connectivity in the Brain

- Used open source data from the 1000 Human Connectomes Project to analyze brain states
- Used machine-learning techniques to train a computer to diagnose patients with psychiatric disorders

Pharmacokinetic Simulation Tool for PET Neuroimaging

Hooker Research Group, Martinos Center, Massachusetts General Hospital – June 2015-Present

- Created a flexible system in Matlab for simulation of multiple radiotracers and kinetic models
- Developed a user-friendly interface and write clear documentation so that chemists can complete simulations without any prior-knowledge of computer-programming

GammaBomb 2.0: Blood Data Analysis Tool for PET Neuroimaging

ADDITIONAL EXPERIENCE

Office of Residential Life and Learning, Tufts University Aug. 2014 - Present
Resident Assistant

- Organize community events; conduct rounds to maintain dorm-safety; advise and counsel residents during their first year of college

Enigma: Tufts Independent Data Journal Jan. 2016 - Present
Contributing Author

Tufts Psychology Society Sept. 2015 - Present
Class of 2017 Representative

Department of Engineering, Town of Braintree, MA May – July 2014
Civil Engineering Intern

- Budgeted road-repair projects; assisted with DigSafe inspections; mapped various water/sewer infrastructure using high-resolution GPS

Cohen Auditorium, Tufts University Oct. 2013 - Dec. 2015
A/V, Lighting, & Sound Technician

Department of Drama and Dance, Tufts University Sept. 2014 - Feb. 2015
Stage Manager

Department of Child Development, Tufts University July - August 2014
Camp Counselor/Tutor

VOLUNTEER EXPERIENCE

DeafBlind Contact Center

Alzheimer's Association: The Longest Day

Tufts Video Mentor Thing