Sacha McElligott | sacha@nyu.edu

+1 (415) 215-1827 ● sachaker.github.io

Relevant Skills

Advanced: MATLAB, Java   **Intermediate**: Python, R, SQL, LaTeX   **Other**: Excel

Education

Bachelor of Science (New York University)   Sept 2015 – Jan 2019
Major: Neural Science   **Joint Minor:** Computer Science & Mathematics
Honors Thesis: "Secernin-1 is a Novel Protein Involved in Alzheimer's Disease"

Experience (selected)

Tracking rodent whiskers (University College London)   Jan 2019 – Dec 2019
- Wielded deep learning models to identify and track whiskers from videography

Analyzing rideshare data (No affiliation)   Feb 2019 – Mar 2019
- Provided quantitative backbone for potential rideshare comparison app by revealing hidden trends in data from over 12 million Uber, Lyft, Gett and Juno rides in NYC from 2018

Classifying brain tissue (New York University)   Nov 2016 – Dec 2018
- Demonstrated role of a protein in Alzheimer's disease using an ML model to classify stained brain tissue samples

Tracking eye movement (Brown University)   Jun 2018 – Aug 2018
- Created algorithms to identify a specific class of eye movements on-line during behavioral task

Movement tracking of larvae (University of Michigan)   May 2017 – Aug 2017
- Wrote software to identify and track multiple fruit fly larvae from videography

Analyzing patient health data (Posit Science Inc.)   Mar 2012 – Jun 2015
- Analyzed longitudinal patient data from Alzheimer's study, determining efficacy of brain fitness exercises

Publications

"Decision coding by layer 2/3 neurons in primary somatosensory cortex" (Manuscript in preparation)
Buetfering, C., Boven, E., **McElligott, S.K.**, Pitsiani, M., Smallridge, J., Häusser, M.

"Secernin-1 is a novel phosphorylated tau binding protein that accumulates in Alzheimer's disease and not in other tauopathies" *Acta Neuropathol Commun; 7, 195 (2019) *Read more than 90% of all items on ResearchGate from 2019**
Pires, G., **McElligott, S.K.**, Drusinsky, S., Halliday, G., Potier, M.C., Wisniewski, T., Drummond, E.S.

Grants and Awards

NSF Graduate Research Fellowship (2019; awarded, did not accept) – *Provides complete financial support for 3 years of PhD studies. Selection is a "significant national achievement"* ($48,000/year; Total: $144,000) (National Science Foundation)

NIH BP-ENDURE Fellowship (2017 – 2019) – *Hourly payment for all research conducted during the academic year including summer research opportunities* ($16,347/year; Total: $32,694) (National Institutes of Health)

Samuel M. Feldman Neural Science Thesis Prize (2019) (Total: $100) (New York University)

CAS Merit Scholarship (2015 – 2019) ($39,600/year; Total: $138,600) (New York University)

Dean's Honors List (2018) (New York University)

Dean's Undergraduate Research Fund (x3) (2016, 2017) ($1000/award; Total: $3,000) (New York University)

Dean's Opportunity Fund for Graduate School (2019) (Total: $500) (New York University)

Dean's Undergraduate Conference Grant (x2) (2018) (Total: $935) (New York University)

Best Poster Presentation (2017) (New York University)

Other

- 12 conference presentations
- 2 years of neuroscience outreach
- 1 year of tutoring at Rikers Island Jail
- Peer Mentor to 4 undergraduates
- Spanish (fluent), German (conversational)
- Sigma Xi Honor Society