JENNIFER STISO

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EDUCATION

University of Pennsylvania - PhD in Neuroscience *Jan 2021*
University of California at Berkeley - BA in Molecular Biology & Cognitive Science *Aug 2016*

PROJECTS

Network Control Models for Understanding Stimulation Therapies (MATLAB, R, Python)

- With a colleague, produced and presented biweekly deliverables to diverse staff at DARPA
- In collaboration with leading mathematician, successfully applied tools from statistics, and machine learning towards modeling the electrical stimulation and BCI therapies in the brain

Software for Citation Transparency (JavaScript, HTML, Python)

- Developed and deployed a Google Chrome Extension that used natural language processing algorithms to display the gender of papers' authors on web search
- Managed a team of 5-10 contributors to improve the robustness of Gender Diversity Statement and Code Notebook at the Organization for Human Brain Mapping Hackathon

EXPERIENCE

Research Engineer, Univ. of Pennsylvania - Complex Systems Group (Bioengineering) *Jan 2021*

- Worked with 2 other members of the lab to design and develop web based psychology experiments using Amazon Mechanical Turk (AWS), JavaScript, SQL and Heroku
- Led development of Python software for network control theoretic analysis

PhD Candidate, Univ. of Pennsylvania - Complex Systems Group (Bioengineering) *Aug 2017*

- Developed computational models of higher-dimensional learning and electrical stimulation as a therapy for neurological disease in humans
- Developed external collaborations with individuals from the Army, DARPA, JHU APL, and INRIA (Paris)

Intern, Johns Hopkins Applied Physics Lab - Intelligent Systems Group *July 2020 - Oct 2020*

- Contributed code for implementing graph rewiring algorithms for large (10^6 connections) datasets to Python software
- Advised interns on writing, and data visualization for research program investigating the impact of biological neural connection motifs on weight-agnostic artificial neural networks

SELECT INVITED PRESENTATIONS (1/8)

Network Models of Brain Structure, Function, and Control. *Rome, Italy. 2019*
Organization for Human Brain Mapping: Data Science in Neuroscience Symposium.

SELECT PUBLICATIONS (2/15)

Stiso, J., ... Bassett, D. S. (2020). Learning in brain-computer interface control evidenced by joint decomposition of brain and behavior. *Journal of Neural Engineering*. doi:10.1088/1741-2552/ab9064.
Stiso, J., ... Bassett, D. S. (2019). White Matter Network Architecture Guides Direct Electrical Stimulation Through Optimal State Transitions. *Cell Reports*. 28(2554 - 2566).

MANAGEMENT

Co-Director of Graduate Led Initiatives and Activities, University of Pennsylvania *2020*
Lead outreach organization with over 100 members across 4 distinct teams