Scott C. Sterrett
ssterrett.github.io

Email : scott0@uw.edu
Mobile : 412-719-5152

Education

University of Washington — Seattle, WA
Ph.D. Student in Neuroscience — exp Dec. 2024
Advised by Dr. Adrienne Fairhall & Dr. David Gire

Johns Hopkins University — Baltimore, MD
Master of Science in Biomedical Engineering — May 2020
Advised by Dr. Xiaoqin Wang

Johns Hopkins University — Baltimore, MD
Bachelor of Science in Biomedical Engineering — May 2017
Advised by Dr. Nitish Thakor & Dr. Gene Fridman

Research Experience

Graduate Researcher: University of Washington Neuroscience — 2020-present
Advisor: Dr. Adrienne Fairhall
Computational models of behaviors and circuits for odor-guided navigation

Graduate Researcher: Johns Hopkins Biomedical Engineering — 2017-2020
Advisor: Dr. Xiaoqin Wang
Latent structure of Marmoset monkey vocalizations

Undergraduate Researcher: Johns Hopkins Biomedical Engineering — 2016-2017
Advisor: Dr. Gene Y. Fridman
Low-power valves for ionic implantable vestibular prosthetic

Undergraduate Researcher: Johns Hopkins Biomedical Engineering — 2014-2015
Advisor: Dr. Nitish Thakor
Wearable EMG recording device for neural-control of upper-limb prosthetics

Professional Training

Software Carpentries Instructor Training — 2023
Cientifico Latino DEI Workshop — 2023
CIMER Mentorship Training — 2021
Cold Spring Harbor Asia Computational and Cognitive Neuroscience Summer School — 2019
Johns Hopkins Center for Educational Resources Teaching Institute — 2019
Johns Hopkins Teaching Academy Certificate Program — 2017 – 2020

Journal Articles

* Denotes equal contribution

Hassinan, C.W.*, **Sterrett, S.C.***, Summy, B., Khera, A., Wang, A., Bai, J. *in press Plos Comp Bio* 2024
Dimensionality of locomotor behaviors in developing C. elegans

Preprints

* Denotes equal contribution

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Krishnan, K., Muthukumar, A., **Sterrett, S.C.**, Pflitsch, P., Fairhall, A., Fishman, M., Bahl, A., Zwaka, H., Engert, F. *under review* 2023

Attentional Switching in Larval Zebrafish: The Attentive Leaky Integrator [link]

Tariq, M.F., **Sterrett, S.C.**, Moore, S., Lane, Perkel, D.J., Gire, D.H. *under review* 2023

Dynamics of odor-source localization: Insights from real-time odor plume recordings and head-motion tracking in freely moving mice [link]

Hassinan, C.W.*, **Sterrett, S.C.***, Summy, B., Khera, A., Wang, A., Bai, J. *under review* 2023

Dimensionality of locomotor behaviors in developing C. elegans [link]

Selected Presentations and Conference Proceedings

Sterrett SC, Brown MA, Findley T, Weible AP, Rafilson S, Wehr M, Murray JM, Fairhall AL, Smear MC. *COSYNE* 2024

Mouse olfactory bulb encodes breathing rhythms and place

Sterrett SC, Gire DH, Fairhall AF, *Janelia Mechanistic Basis of Foraging* 2024

Contributed Talk: Piriform cortex as a meta-reinforcement learning system for olfactory navigation.

Brown MA, Findley T, **Sterrett SC**, Weible AP, Karlsson M, Fairhall AL, Murray JM, Smear MC. *Soc. for Neuroscience* 2021

Neural correlates of time and place in the olfactory bulb of freely-moving mice

Sterrett SC, Gire DH, Fairhall AL. *Neural Computation and Engineering Connection* 2020

Hidden Markov models of locomotion during odor-guided navigation

Sterrett SC, Zhao LY, Wang X. *Marmoset Bioscience Syposium* 2020

Latent space characterization and generation of Marmoset vocalizations using variational autoencoders

Sterrett SC, Zhao LY, Wang X. *Soc. for Neuroscience* 2019

Characterization of Movements Evoked from Electrical Stimulation of Motor Cortex in Awake Marmosets

Cheng C, Thakur R, Nair AR, **Sterrett SC**, Fridman GY. *IEEE BioCAS* 2017

Miniature elastomeric valve design for safe direct current stimulator.

Fellowships and Awards

Simons Collaboration on the Global Brain Trainee Exchange Supplement	2022
University of Washington Computational Neuroscience Training Grant	2020-2021
University of Washington Excellence in Teaching Award Nominee	2020
Johns Hopkins University Teaching-as-Research Fellowship	2020
Johns Hopkins Neuroengineering Training Grant	2017-2018
Johns Hopkins Business Plan Competition Medtech Runner Up	2016
College Swim Coaches Assoc. of America Scholastic All-America	2014-2017
Westinghouse Family Scholarship	2013

Teaching

Guest Lecture: Brains in Motion (University of Washington Psych448)	Winter 2024
Co-Instructor: Software Carpentry Python (University of Washington eScience)	Winter 2024
Guest Lecture: Brains Civilization and Research (University of Washington BIO450)	Spring 2023
TA: Software Carpentry Python (University of Washington eScience)	Winter 2023
Co-Instructor: Software Carpentry Python (University of Washington eScience)	Fall 2022
TA: Software Carpentry Python (University of Washington eScience)	Winter 2022
TA: Current Research in Neuroscience (University of Washington Neuro 450)	Fall 2020
Instructor: BME Innovation (Johns Hopkins University BME 130)	Summer 2020

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Head TA: Frontiers in Neuroengineering (Johns Hopkins University BME 781) Spring 2020
Head TA: Molecules and Cells (Johns Hopkins University BME 221) Fall 2019

Service

UW Computational Neuroscience Center Seminar Committee 2022-2023
UW Grad Prog Neuroscience Student Representative Council 2022-2024
Urban Native Education Alliance Tutor 2020-Present
Simons SCGB Undergraduate Fellowship Reviewer 2021, 2022
UW Theoretical Neuroscience Journal Club Head Organizer 2021-2022
UW Physiology and Biophysics Faculty Search Committee 2020
Greater Baltimore Society for Neuroscience: Meeting Planning Committee 2019
JHU Engaged Scholar Graduate Network: Member 2018– 2020
JHU BME Ph.D Council: Academic Chair and Recruitment Board 2017 – 2019
JHU Project Bridge: Science at the Market & Brainfest Planning Committee Oct. 2017 – Present

Student Supervision

Arnav Khera - Undergraduate, Computer Science, University of Washington 2021-Present
A'Dawnah Pangelinan - Undergraduate, Simons Fellowship, University of Washington 2021
Sidney Moore - Undergraduate, Pyschology, University of Washington 2020
Kevin Zhu - Undergraduate, Biomedical Engineering, Johns Hopkins University 2018-2019

Professional Membership

Bernstein Network Computational Neuroscience 2022
Society for Neuroscience 2017-Present

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