

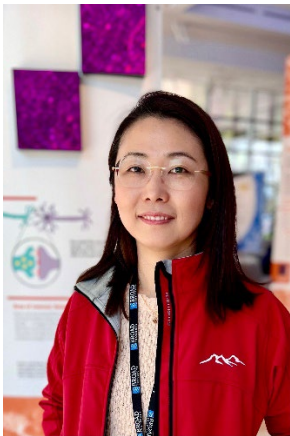
# NEURAL ENGINEERING SEMINAR SERIES

## Developing a cloud-based framework for single neuron queries across modalities

<https://psu.zoom.us/j/92405373420>

**April 17, 2024**

12:15 -1:15 p.m. (ET)  
W306 Millennium Science  
Complex



**Bing-Xing Huo**

*Principal Investigator  
Data Sciences Platform*

Broad Institute of MIT and  
Harvard

### **ABSTRACT:**

Categorizing neurons into different cell types has been a classical approach to understanding the brain. While efforts have been made to reconcile across different neuron characterization approaches, most categorization criteria are fundamentally subjective. Our group set out to develop state-of-the-art machine learning methods for solving the cell type classification problem across modalities. To enable FAIR analysis and broadly accessible results from these methods, we are simultaneously building a cross-modality cloud data ecosystem, leveraging the federated BRAIN Initiative data repositories, with computational resources that span institutes offered via the cloud workbench, Terra.

### **BIOGRAPHY:**

Bing-Xing Huo joined the Data Sciences Platform in 2022 as a Principal Investigator and Associate Director of Data Strategy and Alliances. Her work focuses on bringing cutting edge machine learning tools and data infrastructural solutions to address current challenges in biomedical research and generate new frontiers of scientific discovery. Huo has been actively engaged in international collaboratives on open science projects, and is a strong advocate for sustainable data ecosystems. Prior to joining Broad, Huo was a Computational Science Manager at Cold Spring Harbor Laboratory, and Research Scientist at RIKEN in Japan. Huo received her Ph.D. from Penn State with Prof. Patrick Drew.