

SHIN (SHEEN) BROWER

Data Scientist

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GitHub: <https://github.com/SB-27182>

EDUCATION

The Ohio State University (Current GPA: 3.5) Graduating: Winter 2022

Bachelor of Science in Mathematics

Minor: Molecular Genetics

Columbus State Community College Graduated: 2020

Associate of Science (Biochemistry Focus)

UNDERGRADUATE RESEARCH

Bioinformatics and Mathematical Biosciences Lab - Researcher 2022

Volunteer Research

Building a Programmable *In-Vivo* Data Recorder 2019

Spring 2019 Undergraduate Research Scholarship (URS) - 10,000\$

STATISTICAL MODELING SKILLS

Bayesian Density Models Disentanglement Analysis (ICA) Variational Auto-Encoders

Invertible Neural Networks Hypothesis Testing

Linear/Polynomial Regression Fluency in R and Python Fluency with PyTorch

QUANTITATIVE, DYNAMICAL MODELING SKILLS

Modeling Linear and Non-Linear Dynamical Systems for Systems Biology

Computing Dynamic and Numerical Solutions in Matlab/Octave

SOFTWARE DEVELOPMENT SKILLS

Robust Object Oriented Programming Background

Fluency in Java, Python, R, HTML, CSS, JavaScript

Other Skills: Jupyter Notebook, Linux Bash, SQL Queries, Using Big-Data API's (AWS, GCP-BigQuery)

Generally can learn an API to a functional level in a week, and begin extending classes in 2-3 weeks.

WET-LAB SKILLS

Optimizing PCR ThermoCycler Programs Buffer Titrations Micro Injection Procedures

Directed & Undirected EndoNuclease Digestions Bacterial Transfection Electrophoresis

GENERAL RESEARCH DIRECTION AND INTERESTS

My research involves studying and building the interface between the statistical representation of high-throughput, multi-omic biological data and the dynamical, quantitative model of the underlying generator function. I am working towards modeling cellular dynamics from multi-omic data via generative-density neural networks, dynamical models and network analysis.