Pinyi Wu

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EDUCATION

Columbia University **New York, NY**
Candidates for Master of Science in Biostatistics *Class of 2023*

University of Rochester **Rochester, NY**
Bachelor of Science in Brain & Cognitive Science, Bachelor of Arts in Data Science *Class of 2021*
Minor in Psychology

- GPA: 3.99/4.0
- Honors: Summa Cum Laude, Dean scholarship, Dean's list

SKILLS

- Programming language: Python, Java, R Studio, Excel, MATLAB, Spike 2, SAS; operating Linux, Mac, Windows system
- Laboratory skills: brain perfusion fixation, brain dissection of mice, mice behavior training
- Excellent communication skills proven by multiple teaching assistant jobs
- Foreign languages: native speaker of Mandarin, Japanese N2, intermediate learner of Spanish

RESEARCH EXPERIENCE

Adam Snyder lab at University of Rochester **Rochester, NY**
Research Assistant *Feb. 2020 – May 2021*

- Assisting in research focusing on decoding EEG signals of novel detections of different kinds of visual components in macaques. Helping analyze EEG data using Python and MATLAB, chairing macaques, preparing experiments setups, providing entertainment and foods to macaques.

Xiongjie Yu lab at Zhejiang University **Hangzhou, China**
Research Assistant *Jul. 2019 – Aug. 2019*

- Trained a rat to perform discrimination task on time intervals between a pair of sound stimulus, coded in Spike 2 and MATLAB for experimental protocols and data analysis
- Assisted in novelty detection in sound frequency in nonhuman primates, examining neural activity using electrophysiology (EP)

Hailan Hu lab at Zhejiang University **Hangzhou, China**
Research assistant *Jun. 2019 – Jul. 2019*

- Trained C57 mice using the Tube Test protocols, used optogenetic stimulation to examine changes in social hierarchy on 20 mice (5 cages), recorded and marked mice behaviors using BORIS
- Used perfusion fixation to prepare brain tissue for microscopy observation, dissected brains and observed under fluorescence microscopy, assisted in observation, and recording of calcium signals

TEACHING EXPERIENCE

Teaching Assistant **Rochester, NY**
Lab Teaching Assistant for CSC 161: Intro to Programming *Sept. 2020 – May. 2021*

- Holding bi-weekly lab sessions, answering Python-related questions, offering coding help and instructions regarding weekly assignments and a 3-staged project based on different Python topics, grading lab assignments, projects, midterm, and final exams.

Teaching Assistant for BCS 204: Lab in Cognitive Neuroscience *Sept. 2020 – Dec. 2020*

- Holding weekly office hour, offering instructions on analysis of behavioral, EEG, fMRI data using Excel, EEGLAB, and SPM12, assisting in recording EEG demo in the actual laboratory setting.

Teaching Assistant for BCS 110: Neural Foundations of Behaviors *Sept. 2019 – Dec. 2019*

- Held weekly recitations for a group of 5-13 local and international students, reviewed lecture materials, and answered questions.

- Additionally held four 2-hour review sessions with three other teaching assistants to help students prepare for unit exams. Graded 4 midterms and 1 optional final.

Center for Excellence in Teaching and Learning **Rochester, NY**

Tutor for multiple subjects *Feb. 2019 – May 2021*

- Tutoring peer students on a one-on-one basis in various subjects, including Brain and Cognitive Science, Biology, and Computer Science
- Answering questions regarding course materials, making test preparation plans, and advising overall study skills in specific subjects. A stipend on an hourly basis.

COURSE PROJECTS AND PAPERS

Capstone Project: Predicting Filter Failure in Trucks **Spring 2021**

- With four teammates, building a comprehensive model to predict the probability of Diesel Particulate Filter failure of trucks based on various features. In collaboration with the transportation company Vnomics.
- Completed data preprocessing, data visualization, time series analysis, baseline models, final pipelines, and 2 presentations. Wrote a 15-page report.

Database and Webpage Design of Bookkeeping in a Bookstore **Fall 2020**

- With two teammates, designed and implemented the database and web-interface of a virtual bookstore using HTML, PHP, and SQL.
- Self-designed the web-interface with various functions, including customers' signing up, logging in, searching books, buying books, and employees' logging in, managing databases, etc. All actions on the web-interfaces resulted in changes in the original database.

Improvement of Movie Recommendation Algorithm: a hybrid approach **Spring 2020**

- With a partner, designed and refined a better movie recommendation algorithm using integrated modeling under the instruction of Professor Jiebo Luo.
- Coded in Python, combined content-based filtering, and user-based collaborative filtering approach to obtain an improved movie recommendation system, with more variability and relatively higher precision than the user-based collaborative filtering approach alone. Wrote a 5-paged research paper.