Jui-Shan Teresa **Lin**

Data Scientist · Bioinformatics Specialist

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Experience

Data Science Associate — *NYC, NY*

New York Genome Center — *May 2021 - Present*

- Elevate cross-ancestral risk prediction using cell-type specific functional annotations trained by deep learning models (MCMC, VI, transformer)
- Develop a genome-wide deep learning model that can better capture the causal variants in Alzheimer's Disease
- QC and integrating on WGS genotype and phenotype files from 36k of Alzheimer's patients.
- eQTL analysis for microglia data

Research Assistant — *State College , PA*

The Pennsylvania State University (Advisor: Dr. Yifei Huang) — *Aug 2019 - Mar 2021*

- Thesis: Supervised Variant Prioritization and Its Evaluation
- Build a machine learning pipeline mainly with python for variant prioritization,especially in missense mutation
- Maximize the performance by comparing different statistical learning methods (i.e., logistic regression, SVM, and gradient boosting)

Education

Master of Science in Bioinformatics and Genomics — *State College, PA*

The Pennsylvania State University — *Aug. 2019 - May. 2021*

Bachelor of Science in Biotechnology and Bioindustry Sciences — *Tainan, Taiwan*

National Cheng Kung University — *Sep. 2015 - May. 2019*

Skills

Programming languages	Python, R, Bash
Data Analysis & Machine Learning	Scikit-Learn, Pytorch, TensorFlow, Pyro, Keras, XGBoost, Numpy, Pandas
Data Visualization	Matplotlib, Seaborn, ggplot2
Tools	UNIX (SLURM), Vitural Machines, Git, LaTex
Bioinformatics	GWAS, eQTL, Variant Prioritization, Fine-mapping, PLINK, VCFtools, IGV

Poster

American Society of Human Genetics 2024 — *Denvor, CO*

Deep learning models of gene regulation and the application in Cross-ancestral PRS in AD — *Nov, 2024*

Alzheimer's Disease Sequencing Project Program Review, NIH — *Bethesda, MD*

Deep learning of gene regulation and its application in cross-ancestry PRS — *Mar, 2024*

American Society of Human Genetics 2022 — *Los Angeles, CA*

Improving the trans-ancestry portability of polygenic risk scores by prioritizing variants in predicted cell-type-specific regulatory elements — *Oct. 2022*

Volunteering

2023 Taiwanese American Association of Biotecnhology |TAAB Symposium — *Rutgers University, NJ*

In charge of mock interview session — *Aug. 2023 - Dec. 2023*