

# Siyuan Li

lsy111@sjtu.edu.cn | +86 177-6614-8847 | [ORCID](#) | [GitHub](#) | [LinkedIn](#) | [Website](#)

## Education

### Shanghai Jiao Tong University School of Medicine

2020/09 - Expected 2025/06

Double major in Preventive Medicine & Administrative Management, GPA 3.65/4.0

Shanghai, China

- ♦ A/A+ Courses: Calculus, C Programming, Bioinformatics, Fuzzy Mathematics and its Application, Causal Inference, Internal Medicine, Pediatrics, Obstetrics and Gynecology, Infectious Diseases, Dermatology Practice, etc.
- ♦ Ad-hoc teaching assistant for C Programming (Fall 2020): Invited by the Professor to provide course assistance, answer fellow students' questions and lead a Q&A session during finals week.

## Publications

- ♦ Ying K, Paulson S, Eames A, Tyshkovskiy A, **Li S**, Perez-Guevara M, et al. [A Unified Framework for Systematic Curation and Evaluation of Aging Biomarkers](#). bioRxiv. 2024:2023.12.02.569722. (Submitted for Journal Review)
- ♦ Han L, Zhao S, **Li S**, Gu S, Deng X, Yang L, et al. [Excess cardiovascular mortality across multiple COVID-19 waves in the United States from March 2020 to March 2022](#). **Nature Cardiovascular Research**. 2023 2023/03/01;2(3):322-33.
- ♦ **Li S**, Han L, Shi H, Chong MKC, Zhao S, Ran J. [Excess deaths from Alzheimer's disease and Parkinson's disease during the COVID-19 pandemic in the USA](#). **Age and Ageing**. 2022 2022 DEC 5;51(12).

## Research Experience

### Single-Cell Aging from a Large Language Model Perspective, Co-Investigator

2024/05 - Present

- ♦ Collected data, performed preprocessing, and fine-tuned models using Python
- ♦ Evaluated model performance using various metrics

Under development

### A New Machine Learning Method for Disease Prediction based on Epigenetics, Co-Investigator

2024/02 - Present

- ♦ Gathered datasets and performed experiments using Python
- ♦ Reproduced over a dozen classic disease prediction models for comparison with new methods

Under development

### A Unified Framework for Systematic Evaluation of Aging Biomarkers, Co-Investigator

2023/12 - Present

- ♦ Collected dataset and reproduced models from multiple multiple landmark papers using Python
- ♦ Contributed to partial functions in the Biolearn Python library for aging clock algorithms

Submitted

### Environmental exposure to Benzene and new-onset Alzheimer's disease, Principal Investigator

2023/06 - Present

- ♦ Conducted survival analyses, mixed linear regression analyses and sensitivity analysis using R
- ♦ Interpreted and organized results, compiled tables and summarized key findings informatively
- ♦ Visualized Alzheimer's-related brain atrophy under Benzene exposure using BrainNet Viewer
- ♦ Authored all supplementary materials and created Graphical abstracts

Under Revision

### Metastatic renal cell carcinoma and its immune microenvironment, Co-Investigator

2023/03 - 2024/04

- ♦ Drafted the project proposal of College Students' Innovative Training Program (CSITP)
- ♦ Conducted unsupervised hierarchical clustering analysis on gene expression data using R

Completed

### Excess deaths of Alzheimer's disease and Parkinson disease, Principal Investigator

2022/06 - 2022/12

- ♦ Conducted Poisson regression to estimate counterfactuals using R
- ♦ Performed data visualization using R
- ♦ Authored the entire manuscript and part of supplementary materials

Published

### Excess cardiovascular mortality across multiple COVID-19 waves, Co-Investigator

2022/03 - 2022/11

- ♦ Curated the data for analysis
- ♦ Conducted data visualization in temporal and spatial patterns using R

Published

## Honors

---

- ♦ 2024 Abbott Medical Scholarship, First-Class (Top 0.1%)
- ♦ 2024 Simpleway Private Equity Fund Scholarship, First-Class (Top 0.1%)
- ♦ 2023 National College Student Academic Science and Technology Competition, Third Prize
- ♦ 2019 National Mathematical Olympiad, Second Prize
- ♦ 2019 Merit Student Leader of the Year in Jiangsu Province

## Additional Information

---

**Computer:** Proficient in R and Python, Familiar with C, C++, MATLAB and SPSS

**Language:** Mandarin (Native), English (Fluent)

Last Updated in July 2024