

EDUCATION

The University of Chicago

B.S. Data Science and Statistics

Chicago, IL

Expected, June 2027

Coursework: Introduction to Data Science, System Programming

Washington University in St. Louis

B.S. Data Science and Statistics

St. Louis, MO

Aug 2023 – May 2024

Cumulative GPA: 3.97/4.00

Coursework: Linear Statistical Models, Mathematical Statistics, Optimization, Data Structures and Algorithms

Honors: Dean's List (Fall 2023, Spring 2024), Hack WashU MLH Winner (2023)

SKILLS

Languages: Mandarin, English, Cantonese

Computer: Advanced knowledge in Python, R; Fluent with Java, C/C++

WORK EXPERIENCE

Institute of Informatics, Data Science, and Biostatistics, Washington University in St. Louis

St. Louis, MO

I2DB Summer Intern

May 2024 – August 2024

- Built models for cross-sectional analysis using **Python**, identifying key features in OPG, ADHD, and scoliosis prediction, boosting accuracy by 15%.
- Automated EHR medication data retrieval via NIH APIs, improving model performance by 5%, with medications emerging as key predictive features.

Fencer's Page

Guangzhou, China

Founder of Start-up Company

March 2023 – Present

- Founded a platform using **Java** and **C**, connecting clubs, tournament organizers, and 10,000+ fencers
- Developed the world's first AI fencing referee using Mask-RCNN for pose estimation, training on 10,000+ videos and achieving 90% real-time decision accuracy.

The Personomics Lab, Washington University in St. Louis

St. Louis, MO

Research Assistant

December 2023 – May 2024

- Applied GAMLSS to model relationships in the AABC dataset using **R**, achieving over 70% accuracy in predicting brain-disease associations. Co-authored a paper (in progress) showing the impact of this approach.

PROJECTS

Analyze the Forces and Torques in Joints Motion, Personal Project

St. Louis, MO

Individual Researcher

June 2020 – July 2024

- Developed advanced human pose estimation and blade segmentation models using **Python** and RCNN, calculating joint forces and analyzing impact on athletes. First-authored "Deep Learning Methods to Analyze the Forces and Torques in Joints Motion" in Applied Sciences. Link: <https://doi.org/10.3390/e25111563>.

Analyze Heavy Quark Diffusion Coefficient in Relativistic Heavy-Ion Collisions

St. Louis, MO

Individual Researcher

June 2022 – December 2023

- Modeled quark interactions using CNN and applied the Langevin Equation to simulate data evolution, improving understanding of complex phenomena. First-authored "Machine Learning Approach to Analyze Heavy Quark Diffusion Coefficient in Relativistic Heavy-Ion Collisions" in Entropy. Link: <https://doi.org/10.3390/app14156846>.

LEADERSHIP

Culver Prep and Varsity Fencing Team

Culver, IN

Captain

August 2020 – June 2023

- Led and coached 20+ fencers across prep, varsity, and JV teams, implementing tailored saber training programs and performance tracking, and provided strip coaching in 20+ competitions, directly contributing to the team's victory at the 2022 Men's Sabre Midwest Conference Championship Dual Meet.

Laurel Journal of Humanities

Los Angeles, CA

Co-founder

June 2022 – July 2023

- Led a team of 30+ members to publish two issues in 2022. Oversaw the development of the journal's official website and social media, attracted over 500 followers. Website: www.laurelhumanities.org.