# JIAZHI HE

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### **EDUCATION**

## University of Pittsburgh

Aug 2023 - Present

Ph.D. Student in Statistics

University of Science and Technology of China (USTC)

Sep 2019 - Jul 2023

B.S. in Mathematics and Applied Mathematics

### RESEARCH INTERESTS

I have broad research interests in methodology and theory in high-dimensional statistical inference, nonparametric density estimation, statistical machine learning and statistical applications of genomics and bioinformatics, to establish reliable, powerful, and interpretable solutions to wide real-world problems.

### SELECTED PROJECTS

## Analysis of HIV Drug Resistance Data, University of Pittsburgh

Dec 2023

Analyzed the data set, publicly available from the Stanford HIV Drug Resistance Database, to determine which mutations of the Human Immunodeficiency Virus Type 1 (HIV-1) are associated with drug resistance.

# Optimization Algorithms Course Project, USTC

May 2022

Established the model of an Assignment Problem and obtained the optimal solution using Ortools on Python; Modeled and solved a Traveling Salesman Problem based on optimization software Gurobi and implemented Branch&Cut algorithms; Compared the effect of Lazy Cut and User Cut on the solution rate.

#### **SKILLS**

# **Programming Languages and Frameworks**

C, Python, R, LATEX, Mathematica, Matlab

## Languages

Mandarin (Native Speaker), English (Fluent), German (College German Band 4)

GRE General Test: 324 = Verbal (155)+Quantitative (169)+ Analytical Writing (3.5)

## SELECTED AWARDS AND SCHOLARSHIPS

Outstanding Volunteer Award, USTC	2021
Outstanding Student Scholarship, Silver Award, USTC	2020
Second-class departmental honor, winning rate $< 10\%$ .	
National High School Mathematics League, Second Prize in Anhui Province	2017

#### **TEACHING**

# Teaching Assistant at University of Pittsburgh

Teaching Assistant at USTC	
• MATH1009: Linear Algebra B1	Spring 2022
• MATH3005: Mathematical Statistics	Fall 2022

Fall 2023

Fall 2023

 $\bullet$  STAT 1201/2200: Applied Nonparametric Statistics

• STAT 0800: Statistics in the Modern World