Hanyu Zhu

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Education

Sichuan University Degree expected in June 2024
Bachelor of Medicine in Basic Medical Sciences
Double Major : Software Engineering
GPA(up to now): 3.13/4.00, 80.16/100
Sichuan University(SCU), 985 & 211 National Project

Research Experience

Sichuan University, West China School of Basic Medical Sciences & Forensic Medicine, Department of Pathogenic Biology Oct 2020-Present
Mainly engaged in the research of pathogenic microbial population genomics, pathogenic bacteria resistance mechanism and adaptive evolution. Using high-throughput sequencing as a tool, through bioinformatics analysis to explore important clinical issues such as pathogen dissemination, host adaptation and drug resistance

Research Project

2021 College Students' Innovation & Entrepreneurship Training 2021
Project name: Study on specific antigens of mycobacterium avium based on comparative genomics
Research area: Bioinformatics
Role: Project leader

Technical Skills

- Programming Language: C, Python
- Be familiar with basic command lines operations of Linux

Relevant Courses

Basic Courses of Mathematics:
Calculus, Linear Algebra, Probability & Statistics

Core Courses of Computer Science:
Programming Fundamentals, Introduction to Computer system, Introduction to Object-Oriented Programming, Data Structures & Algorithmic, Computer Organization and Architecture, Operating System, Database System and Information Management, Introduction to Software Engineering, Computer Networks and Distributed System

Achievements and Award

- 2021 Mathematical Contest in Modeling/The Interdisciplinary Contest in Modeling(MCM/ICM): Meritorious Winner(top 9%).
- 2021 Contemporary Undergraduate Mathematical Contest in Modeling(CUMCM), China: the third prize.
- The National Competition for undergraduate on Innovation Research & Experimental Design in Basic Medical Sciences, 2021, China: the second prize(preliminary round).

Brief statement

I have always been fascinated by computer science and the impact it has on the world we live in. To gain a better understanding of computer science, I chose software engineering as a minor. The software engineering double degree program includes core courses in computer science, such as Data Structures & Algorithmic, Computer Organization and Architecture, Operating System, Computer Networks and Distributed System, etc. Through the study of these courses, I will further solidify the fundamentals of computer science and make up for my lack of knowledge in these areas.

As a medical student interested in computer science, I have recognized the importance of computer science for medical research. For example, machine learning plays an important role in genomic data mining and protein structure prediction, which is crucial for "precision medicine". Combining my interest in computer science with my major, I have participated in some research projects related to bioinformatics. I mainly engaged in the research of pathogenic microbial population genomics through bioinformatics analysis to find pathogenic genes and predict specific antigens.

I am interested in studying a Masters' or Ph.D. degree in computer science. In the future, I intend to contribute to the field of computer science that I am interested in.