

# Ziwei Zhao

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## EDUCATION

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### Columbia University, Mailman School of Public Health

New York, NY

#### *Master of Science in Biostatistics*

Expected May 2023

- Cumulative GPA: 3.92/4.0
- Relevant courses: Relational Databases and SQL Programming, Statistical Computing with SAS, Data Science

### Grinnell College

Grinnell, IA

#### *Bachelor of Arts in Biochemistry*

December 2020

- Cumulative GPA: 3.80/4.0
- Dean's List (Spring 2018, Fall 2018, Spring 2019)
- Relevant Coursework: Calculus II, Linear Algebra, Introduction to Data Science, Applied Statistics, Statistical Modeling

## INTERNSHIP EXPERIENCE

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### Student Researcher, Nanjing Agricultural University

Nanjing, Jiangsu

#### *Gene Family Analysis for GR in ten Rosaceae species*

June-August 2021

- Constructed amino acids databases for 10 Rosaceae species and Arabidopsis thaliana, performed protein basic local alignment search (BLASTP) using GR sequence of Arabidopsis thaliana as the query sequence, and identified GR genes from 10 Rosaceae species.
- Analyzed gene structures and motifs of the gene family and constructed a phylogenetic tree for GR genes in 10 Rosaceae species.

### Product Development Analyst, Chenghao Technology Co., Ltd. (Part-time online work)

July-December 2020

- Assisted on the implementation of health food research and development work, including timely completion of feasibility analysis study, application for project approval, preparation of application materials, registration declaration and re-registration organization of pilot production, new product identification and conclusion.
- Tracked policies and regulations and approval status of certain products, researched and compiled literature and materials on regulatory and policy trends, and provided technical support and strategic input on product decisions.

## ACADEMIC PROJECTS

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### *COVID-19 RShiny Project, Grinnell College*

September-October 2020

- Obtained a data set of COVID-19 cases and deaths in each day during the outbreak; summarized the data and wrote a documented program in R and built a Shiny web application to visualize cases and death of COVID-19 epidemic in different countries and continents with GUI and functionality in professional quality.
- Performed principal components analysis and used LASSO model to find possible predictors for the total cases and total deaths caused by COVID-19.

### *Traditional Data Analysis Project in Scheme, Grinnell College*

April-May 2020

- Obtained a dataset of coronavirus sequences comprising 7810 entries and 13 columns.
- Cleaned the dataset and wrote and documented a program in Scheme to extract information about certain coronavirus sequences.
- Visualized the geographical distribution of these coronavirus sequences, and displayed sequences within a given range of lengths.

## SKILLS

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**Language:** English (fluent) • Chinese (fluent) • Japanese (intermediate)

**Data Analysis:** R, SQL, SAS

**Technology:** Microsoft Office Suit, SnapGene, Photoshop, Biology lab skills (bioinformatics, PCR, gel-electrophoresis, real-time PCR, clonogenics, dissection), Organic Chemistry lab skills (NMR and IR spectroscopy, thin-layer chromatography), Biochemistry lab skills (spectrophotometer, Bradford protein determination, column chromatography, SDS-PAGE)