

Sha Tao

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Education

Columbia University, Mailman School of Public Health

Expected May 2019

Master of Public Health (MPH), Biostatistics

- Certificate in Advanced Epidemiology
- Relevant Courses: Data Science, Statistical Computing with SAS, Categorical Data, Applied Regression.

Michigan State University

May 2016

Bachelor of Science (BS), Biochemistry & Molecular Biology.

- Pamela J. Fraker Undergraduate Scholarship

Professional Experience

MSU Biochemistry Department, East Lansing, MI

Nov 2016 – Apr 2017

Research Assistant

- Analyzed the crystal structure of PIP4K by using Microbatch technique.
- Researched the regulation mechanism by PIP4K's binding partners and lipid molecules

MSU-DOE Plant Research Laboratory, East Lansing, MI

May 2014 – Jun 2016

Undergraduate Research Assistant

- Planted more than 1 million seeds in sterile hoods for Natural Variation Project.
- Performed GWAS (Genome-wide association studies) analysis matching the analyzed accessions with the existing SNPs dataset.
- Designed experiments to test gene RHD3's real function, and the interaction with other proteins.

MSU Biochemistry Department, East Lansing, MI

May 2015 – Jul 2015

Undergraduate Research Assistant

- Studied the molecular dynamics stimulation of proteins fHbp, examined the differences between human and mice fHbp, and estimated the binding affinity of humanized mice proteins.
- Analyzed proteins' three-dimensional structure using software such as PyMol and VMD.

MSU-DOE Plant Research Laboratory, East Lansing, MI

May 2014 - Sep 2014

Lab Technician

- Budgeted the expenditure, purchased the chemicals and instruments and designed a new index for outgoings and quotations.
- Communicated with the sales managers and technical product support of biochemistry companies discussing the price and new products.
- Contributed to lab safety by handling broken glass, autoclave, and biohazardous waste, and arranging EHS pickup.
- Trained new lab mates for safety and proper use of equipment.

Volunteer Leadership

MianZhu Emergency Center, Szechwan, China

May 2008 – Jun 2008

Teacher of Primary School and Volunteer of the Organization "On the Way"

- Assembled movable houses and dismantled dilapidated buildings.
- Taught 50 children in the temporary primary school.

Skills and Certificate

- Computing Skills: Proficient with MS Office, Intermediate level of SAS (with SAS Base Certificate). Beginner level of R, Python and AutoCAD.
- Lab Skills: Polymerase Chain Reaction, ELISA, Western Blotting, molecular cloning, etc.
- Language: Bilingual in Mandarin and Shanghainese, fluent English.
- Music: Level 10 certification of piano and level 4 certification of clarinet.