

TIANYU ZHANG

Department of Biostatistics, University of Washington
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EDUCATION

B.S. Peking University, Beijing

Major: Life Sciences, School of Life Science.

Double Major: Mathematics, School of Mathematical Science

RESEARCH EXPERIENCE

Department of Biostatistics, University of Washington

Mar.2018-Present

Advisor: Dr. Noah Simon

· Stochastic gradient descent in general Hilbert space.

Department of Biostatistics, University of Washington

Sep.2018-Present

Advisor: Prof. Ken Rice

· Improving computation efficiency of R package GENESIS by applying PCG algorithm, random estimation and parallel computation.

School of fundamental medicine, Peking University

Mar.2016-July.2017.

Advisor: Dr. Zhengwei Xie

· Found small molecules that could reverse aging-associated gene expression with the help of nonparametric statistics.
· Identified metabolic features of different kinds of cancer using phenotype data predicted by our original algorithm (HCSA).

School of Physics, Peking University

Mar.2015-Feb.2016

Supervisor: Dr. Zhengwei Xie, Prof. Qi Ouyang

· Developed HCSA algorithm to correlate biochemical network phenotype with transcriptome under the premise of thermodynamic steady state.

TEACHING EXPERIENCE

Department of Biostatistics, University of Washington

Jan.2019-Mar.2019

Advisor: Prof. Daniela Witten

· Teaching assistant of BIOST 546 Machine Learning.

School of Life Sciences, Peking University

Apr.2016-July.2016 Apr.2017-July.2017

Advisor: Prof. Jiazhong Yang

· Teaching assistant of Calculus I.

PUBLICATION

Zhengwei Xie, **Tianyu Zhang**, and Qi Ouyang. Genome-scale fluxes predicted under the guidance of enzyme abundance using a novel hyper-cube shrink algorithm. *Bioinformatics*, 34(3):502510, 2018. (co-first author)

SCHOLARSHIPS

School of Life Sciences, Peking University
2015-2016 POSCO Scholarship
2014-2015 Suzhou Industrial Park Scholarship

SKILLS

R, Python, SQL, C, Perl; SAS, MATLAB