YUSI FANG

320 N Neville St. APT. 15-Pittsburgh-PA 15213

(914) 314-9339 | yuf31@pitt.edu

Education

Ph.D. Candidate in Biostatistics

Expected: Apr 2022

Graduate School of Public Health, University of Pittsburgh — *Pittsburgh, PA*

- **Research Interests**: Bayesian data analysis, High-dimensional statistics, Statistical genetics , Meta-analysis, Subgroup analysis
- **Cumulative GPA**: 4.00 / 4.00

B.S. in Mathematics and Applied Mathematics

May 2017

School of Mathematical Sciences, Xiamen University — *Xiamen, China*

- **Cumulative GPA**: 3.81 / 4.00
- **Awards**: Outstanding Undergraduate Thesis, Scholarship of Academic Excellence (top 2/120 in the program)

Research Experience

Graduate Student Research

July 2017 - Present

Department of Biostatistics, University of Pittsburgh; Advisor: George C. Tseng — *Pittsburgh,PA*

- Performing theoretical analysis of existing meta-analysis methods and Developing methodology for detecting sparse signal among multiple studies by combining multiple p-values
- Developing methodology for outcome guided disease subtyping based on high throughput molecular data
- Performing single cell RNA-sequencing data analysis and developing methodology for subject classification model utilizing single cell RNA-sequencing data
- Preprocess bulk RNA-sequencing data using pipelines, such as TopHat2, HiSeq2, SAMtools and HTSeq. Perform downstream analysis of Bulk RNA-sequencing data, such as DE-analysis based on edgeR2,Limma and DESeq2 and pathway analysis
- Perform variant identification and analysis for sequencing data based on GATK

Research Assistant

July 2016 - May 2017

School of Mathematical Sciences, Xiamen University; Advisor: Wei Liang — *Xiamen, China*

- Developed algorithm for kernel-based semi-supervised Bayesian quantile regression and applied it to cell lineage data for detection of abnormal asynchrony of division between sister cells

Publications

- **Fang Y**, Tang S, Huo Z, Tseng GC, Park Y. Properties of adaptively weighted Fisher's method. *arXiv preprint arXiv:1908.00583. 2019 Aug 1.ready to submit*
- Grabosch S, Bulatovic M, Zeng F, Ma T, Zhang L, Ross M, Brozick J, **Fang Y**, Tseng G, Kim E, Gambotto A. Cisplatin-induced immune modulation in ovarian cancer mouse models with distinct inflammation profiles. *Oncogene*. 2019 Mar;38(13):2380.
- Liang W, Yang Y, **Fang Y**, Zhao Z, Hu J. Bayesian Detection of Abnormal Asynchrony of Division Between Sister Cells in Mutant Caenorhabditis elegans Embryos. *Journal of Computational Biology*. 2019 May 1;26(5):495-505.

Relevent Coursework

- Bayesian Data Science, Longitudinal and Clustered Data Analysis, Statistical Estimation Theory, Linear Models, Applied Regression Analysis, Applied Mixed Model Analysis, Likelihood Theory and Applications, Asymptotic Methods in Statistics, High-Dimensional Statistics, Introduction to Genomics Analysis, High-Dimensional Data with Omics Application, Advanced R Computing, Nonparametric Theory, Introduction to Bioinformatics Programming in Python

Skills

Languages	English and Chinese
Statistical Packages	R, STATA, SPSS and MATLAB
Programming Languages	Python, C, shell scripting(Linux) and LaTeX