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*

- **Major GPA**: 3.94 / 4.00 (top 2/71 in the program)
- **Awards**: Outstanding Undergraduate Thesis, Scholarship of Academic Excellence (2015-2017)

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 weak, sparse and heterogeneous 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, Convex Optimization ,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, Non-parametric 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