

Rui Zhuang

rui2@uw.edu

206-790-3208

SUMMARY OF QUALIFICATIONS

- Industry experience in large-scale data mining and machine learning projects.
- Experience in tackling in-depth research projects.
- Proficient in Python, R, and SQL.
- Solid analytical skills and mathematical background.

EDUCATION

University of Washington

Ph.D., Biostatistics

Seattle, WA

2014 - 2019 (expected)

- Research interests: High-dimensional Statistics, Machine Learning, and Graphical Models.
- Selected courses: Advanced Machine Learning, Advanced Regression Methods, Advanced Theory of Statistical Inference, Causal Modeling.

Nanjing University

B.S., Biomedical sciences

Nanjing, China

2006 - 2010

WORK EXPERIENCE

Amazon

Research Scientist Intern at Supply Chain Optimization Technology (SCOT)

Seattle, WA

Summer 2018

- Prototype a pipeline for learning the demand transition among substitute products.

Amazon

Research Scientist Intern at SCOT

Seattle, WA

Summer 2017

- Prototype a feature embedding model using neural network and natural language processing.

Fred Hutchinson Cancer Research Center

Research Assistant

Seattle, WA

2015 - present

- Develop a quantitative measure for evaluating time-varying biomarkers.

Axio Research

Biostatistician Intern

Seattle, WA

Summer, 2015

- Perform statistical analysis of clinical data.
- Design and complete SAS macros for randomization check.

University of Washington

Lab assistant at Department of Pharmaceutics

Seattle, WA

2013-2014

- Analyze metabolomics data for understanding pharmacokinetics.

Hong Kong University of Science and Technology

Research Assistant at Division of Life Sciences

Hong Kong

2010-2012

- Analyze genetic data of mutated zebrafish.

PAPERS

- **Zhuang R**, Lederer J. "Maximum regularized likelihood estimators: A general prediction theory and applications." *Stat* 7.1 (2018): e186.
- **Zhuang R**, Chen YQ. "Measuring surrogacy in clinical research with an application to studying surrogate markers for HIV treatment-as-prevention." (*Under review of Statistics in biosciences*).
- Payne B, Klein J, Simon C, James J, Jackson S, Merrill J, **Zhuang R**, Tsui J. "Effect of lowering initiation thresholds in a primary care-based buprenorphine treatment program." *Drug and Alcohol Dependence* (in press).

- Liu R, Chen X, Du Y, Yao W, Shen L, Wang C, Hu Z, **Zhuang R**, Ning G, Zhang C, Yuan Y, Li Z, Zen K, Ba Y, Zhang C. “Serum microRNA expression profile as a biomarker in the diagnosis and prognosis of pancreatic cancer.” *Clinical chemistry* 58 (3), 610-618.
- Liu R, Zhang C, Hu Z, Li G, Wang C, Yang C, Huang D, Chen X, Zhang H, **Zhuang R**, Deng T, Liu H, Yin J, Wang S, Zen K, Ba Y, Zhang C. “A five-microRNA signature identified from genome-wide serum microRNA expression profiling serves as a fingerprint for gastric cancer diagnosis.” *European journal of cancer* 47 (5), 784-791.
- Chen X, Hu Z, Wang W, Ba Y, Ma L, Zhang C, Wang C, Ren Z, Zhao Y, Wu S, **Zhuang R**, Zhang Y, Hu H, Liu C, Xu L, Wang J, Shen H, Zhang J, Zen K, Zhang C. “Identification of ten serum microRNAs from a genome-wide serum microRNA expression profile as novel noninvasive biomarkers for nonsmall cell lung cancer diagnosis.” *International journal of cancer* 130 (7), 1620-1628.

PAPERS IN PREPARATION

- Lederer J¹, **Zhuang R**¹, Simon N. “A general framework for uncovering dependence networks.”
- **Zhuang R**, Chen YQ. “Surrogate measures for time-varying biomarkers in randomized clinical trials.”
- **Zhuang R**, Case E, Brown S, Emerson S, May S. “A comparison of sample size calculation for cluster randomized crossover trials with binary outcomes.”
- Wu J, **Zhuang R**, Chen YQ. “Nonparametric Estimation of Proportion of Treatment Explained by Surrogate Marker for Time-to-event Data” (*In preparation*).

HONORS AND AWARDS

- **The 3rd Place of Citadel Datathon at University of Washington** granted by Citadel, 2018.
- **UW Biostatistics Senior Poster Award** granted by University of Washington Biostatistics, 2017.
- **National Fellowship** granted by the Ministry of Education of the People’s Republic of China, 2010.
- **Outstanding Student of Jiangsu Province** granted by the Education Department of the Jiangsu Province, 2010.

¹The authors contribute equally to this paper.