# Si Cheng

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## Education

Ph.D. Biostatistics, University of Washington, Seattle, WA, 2018-present.

M.S. Biostatistics, Yale University, New Haven, CT, 2016-2018.

B.S. Mathematics and Applied Mathematics, Tongji University, Shanghai, China, 2012-2016.

## Research Experience

### *Independent Study*

Department of Biostatistics, University of Washington — October 2018 - present
Supervisor: Ali Shojaie, Ph.D.

(Ongoing) Investigating L1-regularization methods and smoothing techniques for doubly stochastic spatial point processes

### *Research Assistant*

Department of Biostatistics, University of Washington — September 2018 - present
Supervisor: Kathleen F. Kerr, Ph.D.

(Ongoing) Developing risk prediction models for long-term clinical outcomes based on short-term clinical factors

Generalized a prognostic enrichment tool for clinical trials from binary outcomes to survival outcomes

Department of Biostatistics, Yale University — January 2017 - August 2018
Supervisor: Forrest W. Crawford, Ph.D.

Studied consistency theories of population size estimation, and formalized a unifying asymptotic framework for this setting

Derived asymptotic properties and (in)consistency claims for population size estimators under the proposed framework

### *Undergraduate Thesis*

School of Mathematical Sciences, Tongji University, Shanghai, China — January 2016 - June 2016
Supervisor: Chunjing Li, Ph.D.

Conducted radial basis function interpolation on block matrices for image magnification

Established global and local distortion measures to assess the fidelity of magnified images

## Teaching Experience

Teaching Assistant, BIOST 571 Advanced Regression Methods for Dependent Data Winter 2020

## Publications

**Cheng S.**, Kerr, K. F., Thiessen-Philbrook, H., Coca, S., Parikh, C. A comprehensive framework for evaluating biomarkers for prognostic enrichment of clinical trials with time-to-event endpoints. *Submitted*. (2020)

**Cheng, S.**, Eck, D. J. and Crawford, F. W. Estimating the size of a hidden finite set: large-sample behavior of estimators. *Statistics Surveys*. 14 (2020): 1-31.

Li, C., **Cheng, S.**, Chen, X., Zhu, W. and Hu, J. Indication and detection of global fidelity of block image magnification based on radial basis function interpolation. 2016 6th International Conference on Digital Home (ICDH). IEEE, 2016.

## Software

R package `BioPETsurv`: Biomarker Prognostic Enrichment Tool for Time-to-Event Trial.

BioPETsurv webtool

## Presentations

"Estimating the size of a hidden finite set: large-sample behavior of estimators", Joint Statistical Meetings, Vancouver, BC, August 2018.

## Work Experience

Business Intelligence Analyst Intern November 2015 - March 2016
Electronic Arts, Shanghai, China

Generated descriptive statistics, conducted statistical analysis using SPSS and Excel, designed performance dashboards, and compiled statistical reports

## Selected Awards & Honors

UW Biostatistics Top Scholar Recruitment Award March 2018

Colin White Memorial Scholarship November 2017
awarded to one student in Yale Department of Biostatistics every year

Outstanding Graduate of Tongji University June 2016
awarded to 5% of all graduates

Outstanding Undergraduate Thesis June 2016
titled "Image magnification algorithms using radial basis function interpolation on block matrices"

Tongji University Outstanding Student Scholarship October 2013, 2014, 2015

# Programming Skills

R, SAS, Matlab, SQL, C#, C++

Last updated: June 3, 2020
https://chengs94.github.io