

# Hongxiang Qiu

Postdoc Researcher  
Department of Statistics  
The Wharton School, University of Pennsylvania  
Philadelphia, PA 19104-1686

qiuhx@upenn.edu  
<https://QIU-Hongxiang-David.github.io/>

## Education

### University of Washington

PhD, Biostatistics 2016–2021  
Dissertation advisor: Marco Carone, PhD and Alex Luedtke, PhD

### The Chinese University of Hong Kong

B.Sc., Mathematics; Minor in Statistics 2012–2016  
Capstone project advisor: Raymond Honfu CHAN, PhD

## Research Experience

### Kaiser Permanente Washington Health Research Institute

*Graduate Research Assistant* 2016–present  
PRimary care Opioid Use Disorders Treatment (PROUD) Trial  
Advisor: Jennifer F. Bobb, PhD

### Shanghai Institute of Biological Sciences

Advisor: Shuhua Xu, PhD Summer 2015

## Teaching Experience

### University of Washington

*Tutor* Spring 2019  
STAT 583: Advanced Theory of Statistical Inference  
Topics including: empirical processes, semiparametric efficiency  
Instructors: Alex Luedtke, PhD and Marco Carone, PhD

### University of Washington

*Teaching Assistant* Winter 2019  
BIOST 557: Applied Statistics and Experimental Design  
Topics including: one/two-sample t-test, linear models, GLMs, causation versus correlation  
Instructor: Brian Lerous, PhD

## University of Washington

Grader

Winter 2018

STAT 582: Advanced Theory of Statistical Inference

Topics including: Bayes methods, decision theory, UMPU test

Instructor: Jon A. Wellner, PhD

## Peer reviewed publications

(† stands for equal contribution.)

### Methodology

1. **Qiu H**, Luedtke A, Carone M (2020+). Universal sieve-based strategies for efficient estimation using machine learning tools. *arXiv preprint: arXiv:2003.01856* (accepted by *Bernoulli Journal*)
2. **Qiu H**, Carone M, Sadikova E, Petukhova M, Kessler R, Luedtke A (2020). Optimal individualized decision rules using instrumental variable methods. *Journal of the American Statistical Association* (with discussion), 1–18.
3. Bobb J, **Qiu H**, Matthews, A, McCormack J, Bradley K (2020). Addressing identification bias in the design and analysis of cluster-randomized pragmatic trials: a case study. *Trials* 21(1), 289.
4. **Qiu H**, Luedtke A, van der Laan M (2019). Contribution to discussion of “Entropy Learning for Dynamic Treatment Regimes” by Jiang B, Song R, Li J, Zeng D. *Statistica Sinica*, 29(4): 1666–1678.

### Application

5. Fitts W, Tassiou NR, Cisse FA, Vogel A, Atakla HG, Sakadi F, **Qiu H**, Conde ML, Balde AT, Bah AK, Hamani ABD, Anand P, Patenaude B, Mateen F (2019). School Status and its Associations among Children with Epilepsy in the Republic of Guinea. *Epilepsy & Behavior*, 97, 275–281.
6. Jang M, Sakadi F, Tassiou NR, Abass CF, Grundy SJ, Woga A, Kenda BA, Lamine CM, Talibé BA, **Qiu H**, Cohen JM, Carone M, Mateen FJ (2018). Impact of Poorly Controlled Epilepsy in the Republic of Guinea. *Seizure*, 61, 71–77.
7. Zhou Y<sup>†</sup>, **Qiu H**<sup>†</sup>, Xu S (2017). Modeling continuous admixture using admixture-induced linkage disequilibrium. *Scientific Reports*, 7, 1–10.

### Preprint/under review

8. Qiu H, Luedtke A (2021+). Leveraging vague prior information in general models via iteratively constructed Gamma-minimax estimators. *arXiv preprint: arXiv:2003.05465*

## Presentations

1. “Optimal individualized decision rules using instrumental variable methods.” **Qiu H**, Carone M, Sadikova E, Petukhova M, Kessler R, Luedtke A.
  - 2021 Joint Statistical Meetings

- 2020 ENAR Spring Meeting
  - Biostatistics student seminar
  - Causal working group
2. “TMLE based on Pseudo-gradients and examples from my project.” **Qiu H.** Semiparametric Efficiency Reading Group.
  3. “Constructing asymptotically normal plug-in estimators with highly adaptive Lasso and data adaptive series.” **Qiu H**, Luedtke A & Carone M.
    - 2019 WNAR/IMS/JR (Japanese Region) meeting
    - Biostatistics student seminar

## Reviewer for International Journals and Conferences

- 37th Conference on Uncertainty in Artificial Intelligence (UAI 2021)
- *Journal of the American Statistical Association*
- *International Journal of Biostatistics*
- *Statistical Methods in Medical Research*

## Awards and Fellowships

### University of Washington

Scholarship for 6th Seattle Symposium in Biostatistics  
2018 Donovan J. Thompson Award

October 2020  
October 2018

### Chinese University of Hong Kong

Dean's List, 2015–2016  
College Head's List, 2014–2015  
Department/Programme Scholarship, 2014–2015  
Undergraduate Mathematics Scheme  
Shaw College Global Exposure Award Scheme 2014–15  
Heung To Educational Fund Mathematics Scholarship  
Reaching Out Award  
1978 Mathematics Alumnus Li Sze-lim Scholarships  
College Head's List, 2013–2014  
Department/Programme Scholarship, 2013–2014  
CUHK Golden Jubilee Scholarship for Outgoing Exchange Student, 2014-2015  
Yasumoto International Exchange Scholarships  
Dean's List, 2013–2014  
Undergraduate Mathematics Scheme  
Dragon Crowd "SCHIESSER" Scheme  
College Head's List, 2012–2013

July 2016  
January 2016  
January 2016  
November 2015  
April 2015  
April 2015  
April 2015  
January 2015  
January 2015  
January 2015  
September 2015  
July 2014  
July, 2014  
June 2014  
April 2014  
January 2014

Department/Programme Scholarship, 2012–2013  
Outstanding Essay Award, 2012–2013  
Dean's List, 2012–2013

January 2014  
November 2013  
July 2013

## Software

**CAMer** R package for Continuous Admixture Modeling based on the result of iMAAPs.

## Languages and Skills

Programming:

- proficient: R
- familiar: Python, MATLAB
- basic: SAS, Stan, JAGS, C++, C

Operating systems: Windows, Unix

Other computer skills: Git,  $\text{\LaTeX}$ , Markdown, Microsoft Office

Languages: English (fluent), Chinese Mandarin (native), Chinese Cantonese (basic)