Jerry (Chia-Rui) Chang

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Education

Harvard University, The Graduate School of Arts and Sciences, Cambridge, MA May 2019 – Present

- *Ph.D. Candidate in Biostatistics*, Expected May 2024
- *A.M., Biostatistics*, May 2021
- Dissertation Advisor: Dr. Rui Wang
- Funding supported by The Wei Family Biostatistical Fellowship

Duke University, Trinity College of Arts and Sciences, Durham, NC August 2014 - December 2018

- *B.S. in Statistical Science with distinction*
- *Minor in Computer Science*
- Honors: The Julia Wilkinson Mueller Prize for Excellence in Music

Working Papers

- **Chang C-R** and Wang R, Robust Weighting Method to Handle Multilevel Missing Outcomes in Cluster Randomized Trials
    - Developed a new weighting method to correct for bias in cluster randomized trials when outcome data is missing at both cluster-level and individual-level
    - The method demonstrates robustness property through specifications of multiple propensity score models

- Song Y, **Chang C-R**, Li F and Wang R, Covariate Adjustment in Randomized Experiments with Missing Data
    - Conducted simulation studies to evaluate the impact of missing covariates on confounding/covariates adjustment in randomized controlled trials

Teaching Experience

Project Instructor, StatStart Program

- Harvard University, Department of Biostatistics, July 2021
    - Mentored high school students from underrepresented and low-socioeconomic backgrounds in the greater Boston area
    - Developed "Dose-finding Algorithm" project and mentored students on topics related to statistics, programming, and algorithm

Teaching Fellow, Harvard University, Department of Biostatistics

- BST 239: Health Survey Samples, Spring 2021 (Instructor: Dr. Marcello Pagano)
- BST 214: Principles of Clinical Trials, Spring 2021 (Instructor: Dr. David Wypij)

Teaching Assistant, Duke University, Department of Statistical Science

- STA 360/601: Bayesian Statistics, Fall 2018 (Instructor: Dr. Alex Volfovsky)
- STA 250/MATH 342: Mathematical Statistics, Spring 2018 (Instructor: Dr. David Jones)

Software and Technical Skills

FLAME

- FLAME is an R package that provides fast, large-scale, and almost-exact matching approach to causal inference
- CRAN download link: https://CRAN.R-project.org/package=FLAME

Technical Skills

- R, Python, Java

Past Research Projects

FLAME: A Fast Large-scale Almost Matching Exactly Approach to Causal Inference

- Advisors: Cynthia Rudin & Alex Volfovsky, Duke University, May 2018 - December 2018

Modeling Federal Employee Data to Predict Promotion

- Advisor: Jerome P. Reiter, Duke University, August 2017 – May 2018

Service and Other Activities

Peer Mentor, Harvard University Department of Biostatistics, March 2020 – Present

- Create a network of guidance, community, and support for incoming Ph.D. student

Secretary General, Harvard University Taiwanese Student Association, August 2020 – Present

- Supervise and lead team members to develop projects and events to serve Taiwanese students in the Harvard community

Member, Ensemble Hippocrates, March 2017 – December 2018

- Brought professional concert experiences to local nursing homes, senior centers, and other medical facilities in Durham, NC

Honors and Awards

Best Data Visualization, ASA DataFest @ Duke (2016)

The Julia Wilkinson Mueller Prize for Excellence in Music (2018)

- The Muller Prize is presented to a graduating senior for achievement in musical performance

Winner, Duke University Concerto Competition (2015 & 2018)

- Won the award with Chopin Piano Concerto No.2 in 2014 and Liszt Piano Concerto No.1 in 2018
- Performed with the Duke Symphony Orchestra and raised $40,000 for Duke University Hospital

Previous Employment

Ernst & Young – Insurance and Actuarial Advisory Services,
Consulting Staff, February 2019 – July 2019;
Summer Consulting Intern, June 2017 – July 2017

1000 Friends of Oregon, DukeEngage Intern, June 2015 – August 2015