Samuel Tracy

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Ph.D. candidate in Biostatistics at Harvard University focusing on methods for single-cell sequencing data. My advisor is Dr. Guo-Cheng Yuan. I am also an advocate for open-source development, reproducible research and diversity in STEM.

EDUCATION

Ph.D. Biostatistics	Harvard University	2019[1]
M.A. Biostatistics	Harvard University	2016
B.S. Applied Mathematics, *magna cum laude*	UC San Diego	2014

PROFESSIONAL EXPERIENCE

Research Consultant 09/2017 – present
Harvard T.H. Chan School of Public Health, Boston, MA
Biostatistics Student Consulting Center

Student Intern 03/2013 – 06/2013
Clinical & Translational Research Institute, San Diego, CA
Clinical data analysis under Dr. Ronghui Xu and James Proudfoot

TEACHING EXPERIENCE

Teaching Assistant 01/2016 – present
Harvard T.H. Chan School of Public Health, Boston, MA
BST 210 Applied Regression Analysis
BST 226 Applied Longitudinal Analysis

Co-founder and Instructor 01/2015 – present
StatStart: a High School Summer Program in Biostatistics, Boston, MA
Statistical computing with the programming language R

Teaching Assistant 09/2013 – 06/2014
UC San Diego, San Diego, CA
MATH 10ABC Calculus Series

Academic Liaison 01/2013 – 03/2013
Fallbrook High School, Fallbrook, CA
Through the UC San Diego Educational Studies Department, San Diego, CA

PUBLICATIONS

Talbot, O., Ocampo, A., Tracy, S., Mosesso, K., Rahman, A., and Pagano, M. (2016). StatStart 2015. *ASA: The Statistics Teacher Network*, 87: 4-8.

[1] anticipated

IN PROGRESS

Chen, T.*, **Tracy, S.***, Uno, H. OptBand: optimal confidence bands for functions to characterize time-to-event distributions.

Tracy, S., Dries, R., Yuan, G.C. A nonparametric method to impute dropout in single-cell RNA-sequencing data.

Tracy, S., Yuan, G.C. A selection method for cell trajectory models applied to single-cell RNA-sequencing data.

Tracy, S., Zhu, Q., Yuan, G.C. A generalized method for mapping cell types across single-cell sequencing platforms.

*Co-first authorship

SELECTED PRESENTATIONS

An iterative method for imputing dropout values in scRNA-seq data. Poster presentation at the *Dana-Faber Cancer Institute Department of Biostatistics and Computational Biology Retreat*, Simmons College, Boston, MA, January 18, 2018.

OptBand: optimal confidence bands for functions to characterize time-to-event distributions. Contributed-paper presentation at the *ENAR Spring Meeting 2018*, Hyatt Regency, Atlanta, GA, March 28, 2018.

SOFTWARE

Co-creator and maintainer of the R package *optband* (on CRAN and GitHub), which contains methods for minimal-area simultaneous confidence bands applicable to failure-time data.

SELECTED INVOLVEMENT

Graduate Student Council, *Department Representative*	09/2015 – 08/2017
Roxbury Prep Tutoring, *Co-director*	09/2016 – 05/2017
Roxbury Prep Tutoring, *Coordinator*	09/2015 – 05/2016
Student Conduct Code Committee, *Student Representative*	01/2014 – 06/2014
Global Water Brigades, *Honduras Brigade Member*	01/2014 – 03/2014