

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, <i>magna cum laude</i>	UC San Diego	2014

PROFESSIONAL EXPERIENCE

Research Consultant <i>Harvard T.H. Chan School of Public Health, Boston, MA</i> Biostatistics Student Consulting Center	09/2017 – present
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Student Intern <i>Clinical & Translational Research Institute, San Diego, CA</i> Clinical data analysis under Dr. Ronghui Xu and James Proudfoot	03/2013 – 06/2013
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TEACHING EXPERIENCE

Teaching Assistant <i>Harvard T.H. Chan School of Public Health, Boston, MA</i> BST 210 Applied Regression Analysis BST 226 Applied Longitudinal Analysis	01/2016 – present
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Co-founder and Instructor <i>StatStart: a High School Summer Program in Biostatistics, Boston, MA</i> Statistical computing with the programming language R	01/2015 – present
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Teaching Assistant <i>UC San Diego, San Diego, CA</i> MATH 10ABC Calculus Series	09/2013 – 06/2014
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Academic Liaison <i>Fallbrook High School, Fallbrook, CA</i> Through the UC San Diego Educational Studies Department, San Diego, CA	01/2013 – 03/2013
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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 , <i>Department Representative</i>	09/2015 – 08/2017
Roxbury Prep Tutoring , <i>Co-director</i>	09/2016 – 05/2017
Roxbury Prep Tutoring , <i>Coordinator</i>	09/2015 – 05/2016
Student Conduct Code Committee , <i>Student Representative</i>	01/2014 – 06/2014
Global Water Brigades , <i>Honduras Brigade Member</i>	01/2014 – 03/2014