

Samuel Tracy

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Ph.D. candidate in Biostatistics at Harvard University focusing on methods for failure time data and single-cell sequencing data. In particular: developing and adapting sampling techniques, optimization theory, adjustments for missingness, clustering methods, and dimensionality reduction. 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	09/2017 – present
<i>Harvard T.H. Chan School of Public Health, Boston, MA</i>	
Biostatistics Student Consulting Center	
Student Intern	03/2013 – 06/2013
<i>Clinical & Translational Research Institute, San Diego, CA</i>	
Clinical data analysis under Dr. Ronghui Xu and James Proudfoot	

TEACHING EXPERIENCE

Teaching Assistant	01/2016 – present
<i>Harvard T.H. Chan School of Public Health, Boston, MA</i>	
BST 210 Applied Regression Analysis	
BST 226 Applied Longitudinal Analysis	
Instructor and Administrator	01/2015 – 08/2017
<i>StatStart: a High School Summer Program in Biostatistics, Boston, MA</i>	
Statistical computing with the programming language R	
Teaching Assistant	09/2013 – 06/2014
<i>UC San Diego, San Diego, CA</i>	
MATH 10ABC Calculus Series	
Academic Liaison	01/2013 – 03/2013
<i>Fallbrook High School, Fallbrook, CA</i>	
Through the UC San Diego Educational Studies Department, San Diego, CA	

¹ anticipated

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.

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.

SKILLS & INTERESTS

Software	–	R, MATLAB, Stata, Java, C++, Python
Interests	–	tumor evolution and heterogeneity, systems architecture, cyber security

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

REFERENCES

Yuan, Guo-Cheng

Associate Professor, Department of Biostatistics, Harvard T.H. Chan School of Public Health
Address: 360 Longwood Ave, Room 1060, Boston, MA 02215
Tel: (617) 582-8532 Email: gcyuan@jimmy.harvard.edu

Xu, Ronghui

Professor, Department of Mathematics, University of California, San Diego
Address: 9500 Gilman Drive #0112, La Jolla, CA 92093
Tel: (858) 534-6380 Email: rxu@ucsd.edu