

Yutong Wang

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Graduate Group in Biostatistics
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| Education | University of California, Berkeley Ph.D. in Biostatistics, 2018 - present Advisor: Yun S. Song Designated emphasis (doctoral minor) in Computational and Genomic Biology Tianjin University, China B.S. in Mathematics and Applied Mathematics, 2018 |
| Research Interests | statistical machine learning, high dimensional statistics, probabilistic modeling, high-throughput sequencing, spatial transcriptomics, cancer biology |
| Publications | Youjin Lee ^{*†} , Derek Bogdanoff [*] , Yutong Wang[*] , George Hartoularos, Jonathan M. Woo, Cody T. Mowery, Hunter M. Nisonoff, David S. Lee, Yang Sun, James Lee, Sadaf Mehdizadeh, Joshua Cantlon, Eric Shifrut, David N. Ngyuen, Theodore L. Roth, Yun S. Song, Alexander Marson [†] , Eric D. Chow [†] , Chun Jimmie Ye [†] , XYZeq: Spatially-resolved single-cell RNA-sequencing reveals expression heterogeneity in the tumor microenvironment. <i>Science Advances</i> 7 , eabg4755 (2021). * indicates equal contribution, [†] indicates co-corresponding authors |
| Professional Experience | University of California, Berkeley 2019 - present <i>Graduate Student Researcher</i> Advisor: Yun S. Song Develop and implement novel statistical methods and computational algorithms for the joint analysis of single-cell genomics data and other data modalities including spatial transcriptome and imaging data. University of Pennsylvania 2017 <i>Undergraduate Research Assistant</i> Advisor: Nancy Zhang Designed and implemented computational experiments to compare gene expression recovery methods for single cell RNA sequencing data. |
| Awards and Fellowships | Biostatistics Diversity Fellowship Graduate Group in Biostatistics, UC Berkeley 2020 - 2022 Biostatistics Block Grant and Non-Resident Student Tuition Award Graduate Group in Biostatistics, UC Berkeley 2018 - 2021 |

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| | Berkeley Wellness Letter Fellowship School of Public Health, UC Berkeley | 2020 - 2021 |
| | Public Health Alumni Association Award School of Public Health, UC Berkeley | 2019 |
| Talks | Joint integration analysis of paired single-cell imaging and RNA sequencing of mature adipocytes Stanford-Berkeley Women in CS/EE Research Meetup Women in Data Science at UC Berkeley | 2022 2022 |
| | Single-cell and spatial transcriptomics data analysis with Seurat in R Computational Biology Skills Seminar, Center for Computational Biology, UC Berkeley | 2021 |
| | XYZeq: Spatially-resolved single-cell RNA-sequencing reveals expression heterogeneity in tumor microenvironment Computational and Genomic Biology Retreat, Center for Computational Biology, UC Berkeley | 2021 |
| Teaching | Center for Computational Biology , University of California, Berkeley <i>Instructor, Python Bootcamp</i> 8-hour lectures to 122 participants including graduate students, postdoc and faculties about data structures, text manipulation, and file input/output. <i>Graduate Student Instructor, Algorithms for Single-Cell Genomics</i> Doctoral level course on algorithms and statistical methods in single-cell genomics. Three main themes of the course are spatial transcriptomics, multi-omics integration, and immune receptor-antigen interactions. School of Public Health , University of California, Berkeley <i>Invited Lecturer, Biostatistics Thesis Seminar (PBHLTH 292)</i> Curriculum development and 6-hour lectures to graduate students on Eugenics in Statistics, Ethnicity and Algorithmic Fairness in Health Care Department of Statistics , University of California, Berkeley <i>Graduate Student Instructor, Concepts of Statistics (STAT 135)</i> Core upper-division course on statistical theory including parametric estimation, hypothesis testing, statistical tests, and linear regression. <i>Graduate Student Instructor, Introduction to Statistics (STAT 2)</i> Responsible for two sections with 50 students, office hours, and grading. | Spring 2022 Fall 2021 Spring 2022 Spring 2020 2018 - 2019 |
| Outreach | University of California, Berkeley Diversity, Equity, Inclusion & Belonging (DEIB) Fellow to plan, implement and organize concrete actions to increase diversity in Biostatistics. | 2020 - present |
| Skills and Languages | R, Python, Matlab, Git, Bash, L ^A T _E X, Mathematica Mandarin (native), English (proficient), German (intermediate) | |