Xinyu Guo

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EDUCATION

Johns Hopkins University — Baltimore, MD
Master, Biostatistics, Current — Current

Washington University in St. Louis — St. Louis, MO
Bachelor, Mathematics Major & Computer Science Minor, GPA 3.89/4.0 — August 2018 - May 2020

- Cum Laude
- Dean's List

East China University of Science and Technology — Shanghai, China
Mechanical Engineering Major, GPA 3.7/4.0 — Sep 2016 - June 2018

- China National Scholarship
- Highest Academical Scholarship of Each China University of Science and Technology

University of California in Berkeley, Summer Institute — Berkeley, CA — June – August 2017

TECHNICAL SKILLS

- Computer languages: R, Python, Java, HTML, CSS, Java Script, Latex, MATLAB, MySQL
- Computer programs: Cluster Computing, SolidWorks, Auto CAD, Microsoft Office, Wind, Amazon AWS
- Other: Web Design, Collecting data from APIs, Photography

RESEARCH AND EXPERIENCE

Lab Member, Statistical Genetics Studies — Baltimore, MD
Advisor: Dr. Nilanjan Chatterjee — Oct 2020 – Present

- Multi-tissue integrates analysis with Transcriptome-wide association studies (TWAS) results

Research Assistant, Statistical Genomics Studies — Baltimore, MD
Advisor: Dr. Hongkai Ji & Dr. Eneda Toska, Johns Hopkins University — Feb 2021 – Present

- Analyzing RNA-seq data: Align and map sequence reads to the genome; Implement differential analysis; Implement GSEA analysis
- Analyzing ChIP-seq/ATAC-seq data: Align and map sequence reads; Call and annotate peaks; Run motif analysis

Research Assistant, Alzheimer's Disease Biomarkers — Baltimore, MD
Advisor: Dr. Chenguang Wang & Dr. Zheyu Wang, Johns Hopkins University — August 2020 – Present

- Creating a R package to collect Alzheimer's Disease biomarkers form BIOCARD, NACC, and ADNI databases, and create an analysis dataset
- Analyzing and visualizing the analysis dataset

Researcher Assistant, Respiratory Failure Prediction — St. Louis, MO
Advisor: Dr. Andrew Michelson, Washington University in St. Louis, Institute for Informatics — June 2020 – Dec 2020

- Worked with lab teams to clean dataset of COVID-19 patients and create a cohort table with 207 features and vital signs
- Modeled with Lasso and Logistic regression to predict respiratory failure probability of COVID-19 tested patients

Researcher, Bootstrap Method Research — St. Louis, MO
Advisor: Dr. Todd Kuffner, Washington University in St. Louis — May 2019 – May 2020

- Independently investigated the properties of bootstrap method in R and visualizing its resampling process
- Evaluated a new method to smooth data density curve and focusing on finding an optimal bandwidth

Registrant, Workshop on Higher-Order Asymptotics and Post-Selection Inference — St. Louis, MO — August 17 - 19 2019

- Attended in 37 presentations of the latest development in post-selection inference and discussions of how tools from higher-order asymptotics can both elucidate important properties of post-selection inference procedures

LEADERSHIP AND COMMUNITY INVOLVEMENTS

Founder, China EYE Public Welfare — Shanxi, China — June 2016 – Present

- Founded an NGO with more than 50 people and raised a donation online while holding charity book fairs in schools and parks
- Went to middle schools in impoverished areas and donated 100 brand new desks with many other teaching equipment

HONORS AND CERTIFICATIONS

- Poster Presentation in MSSISS at University of Michigan (February 2020)
- Summer Undergraduate Research Award (Summer 2019)
- Poster Presentation in Undergraduate Research Symposium (November, 2019)
- Math tutor of Washington University in St. Louis Arts & Science school (August, 2019)
- First prize in the 7th Advanced Graphing Technology and Innovation Design Competition (June 2017)
- Outstanding Student Leaders of East China University of Science and Technology (June 2018)
- Professional Certification of Auto CAD Graphing
- Patent—Multifunctional Shared Printer [201821510016.7]; Patent—Portable Shared Printer [201821494888.9]

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GitHub: https://github.com/Thewhey-Brian