

# Anthony DiGiovanni

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## EDUCATION

### **University of Michigan-Ann Arbor**

*Ph.D. Statistics*

Ann Arbor, MI

*Expected May 2024*

### **The University of Chicago**

*B.S. Computational and Applied Mathematics*

*GPA: 3.83*

Chicago, IL

*2019*

*Relevant Coursework:* Introduction to Theory of Machine Learning, Fundamentals of Deep Learning, Optimization, Linear Algebra, Stochastic Processes, Theory of Algorithms

## PAPERS

• DiGiovanni, A., Demanelis, K., Tong, L., Argos, M., Shinkle, J., Jasmine, F., Sabarinathan, M., Rakibuz-Zaman, M., Sarwar, G., Islam, M. T., Shahriar, H., Islam, T., Rahman, M., Yunus, M., Graziano, J., Gamble, M. V., Ahsan, H., Pierce, B. L. (2019). *Assessing the impact of arsenic metabolism efficiency on DNA methylation using Mendelian randomization*. Manuscript submitted for publication.

## EXPERIENCE

### **Wild Animal Initiative**

*Research Intern*

New York, NY

*June 2019 – August 2019*

- Developed equations and implementations for matrix population models in Python, for the analysis of predator-prey dynamics, density-dependent growth, and changes in age structure.
- Debugged scripts for querying the COMADRE animal demography database.
- Wrote a comprehensive user guide and demonstration/methods section explaining the advantages of a new matrix population model framework, including greater biological realism and utility for quantifying the changes in animal welfare over life history.

### **The University of Chicago**

*Research Fellow*

Chicago, IL

*June 2018 – June 2019*

- Wrote R scripts for the processing and organization of public health data, as well as statistical analyses such as multivariate regression, causal inference tests, mediation analysis, gene-environment interaction analysis, and Mendelian randomization.
- Developed machine learning models in Python and R for the prediction of aging outcomes based on biomarkers.
- Reviewed literature in epidemiology, genomics, and statistics to assist data interpretation and methodology.
- Wrote and edited a scientific manuscript for publication as a first author.

### **CollegeVine**

*Associate Hiring Manager*

Cambridge, MA

*March 2018 – December 2018*

- Evaluated applicants' writing samples and edits of college admissions essays to facilitate hiring decisions for applications consultants.
- Contributed to development of improved hiring policy and procedures.

### **CollegeVine**

*Applications Consultant*

Cambridge, MA

*July 2017 – February 2018*

- Helped clients develop a list of colleges and universities to which they applied, personalized to their interests and strengths, and prepared clients for admissions interviews.
- Guided clients' ideation of application essays, and edited essays for content, structure, style, and grammar.
- Assisted development of extracurricular lists and resumes that optimally displayed clients' strengths.
- Wrote blog posts to provide admissions information to prospective clients.

## **TEACHING**

### **University of Michigan-Ann Arbor**

*Graduate Student Instructor*

- STATS 280: Honors Introduction to Statistics & Data Analysis

Ann Arbor, MI

*September 2019 – present*

### **The University of Chicago**

*Teaching Assistant*

- MATH 13200: Elementary Functions and Calculus II

Chicago, IL

*January 2018 – March 2018*

## **LEADERSHIP**

- Co-president of Effective Altruism chapter at the University of Chicago (*October 2017 – June 2019*)
- Treasurer and Secretary of Phoenix Survivors Alliance student group at the University of Chicago (*September 2016 – June 2019*)