

BRIAN XIA

Senior, Massachusetts Institute of Technology

858-442-6768

bxia@mit.edu

ACADEMICS

Massachusetts Institute of Technology

June 2021

- GPA: 4.8/5.0 – candidate for Bachelor of Science in Computer Science and Engineering
- Sample coursework: *Algorithms, Computational Biology, Computation Structures, Computer Graphics, Computer and Network Security, Computer System Engineering, Distributed Systems, Fundamentals of Programming, Machine Learning, Principles of Computer Systems, Software Construction, Theory of Computation, Web Programming*

TEACHING

Undergraduate Teaching Assistant, Computational Biology (6.047/6.878) September – December 2020

- Lead recitation section for supplementary course material
- Maintained key components of course (problem sets, quiz, project, Piazza)
- Engaged with students on semester-long projects through grading and mentoring

Lab Assistant, Fundamentals of Programming (6.009)

February – June 2020

- Provided feedback, guidance, and checkoffs on lab assignments

Course Instructor for BeaverWorks Summer Institute, MIT Lincoln Laboratory

June – August 2018

- Developed and taught course material related to exploration of data mining and machine learning techniques on health and medical datasets

EXPERIENCE

Engineering Intern, Eli Lilly and Company

June – August 2020

- Developed general-purpose R package using plotly and shiny for dynamic and interactive data visualization

Biomedical Data Scientist, nference

February 2019 – November 2020

- Utilized PeptideAtlas and ProteomicsDB to build back-end database for proteomics application
- Implemented automated MaxQuant pipeline for mass spectrometry analysis
- Developed package for propensity score matching

Celi Lab, MIT Laboratory for Computational Physiology

September 2018 – October 2019

- Quantified impact of glucose testing frequency on the effectiveness of relative hypoglycemic events as an indicator for patient mortality

PUBLICATIONS

- Xia, B., & Belle, J. S. (2018). Non-genetic Transgenerational Inheritance of Acquired Traits in *Drosophila*. *Drosophila Melanogaster - Model for Recent Advances in Genetics and Therapeutics*.
- Du, J., Tian, J., Ding, L., Trac, C., Xia, B., Sun, S., . . . Huang, W. (2017). Vertical sleeve gastrectomy reverses diet-induced gene-regulatory changes impacting lipid metabolism. *Scientific Reports*, 7(1).
- Xia, B., Gerstin, E., Schones, D. E., Huang, W., & Belle, J. S. (2016). Transgenerational programming of longevity through E(z)-mediated histone H3K27 trimethylation in *Drosophila*. *Aging*, 8(11), 2988-3008.
- Xia, B., & Belle, S. D. (2016). Transgenerational programming of longevity and reproduction by post-eclosion dietary manipulation in *Drosophila*. *Aging*, 8(5), 1115-1134.

SKILLS

- Programming languages: Bash, C++, Java, JavaScript, MATLAB, Python, R, and SQL
- External services: AWS, MongoDB, PostgreSQL, REST API, RStudio