Thadryan Sweeney

Technologist, Instructor

I am a Computational Biologist and Scientific Software Developer interested in applying statistical and computational techniques to the study of systems large and small.

Research Positions

- 2020 Research Technologist, Mass General/Harvard Medical School, Boston, MA.
- 2018 Bioinformatics & Data Science Contractor, bluebird bio, Cambridge, MA.

Education

- 2011 Associate of Arts, Greenfield Community College, Greenfield, MA.
- 2013 Bachelor of Science, American International College, Springfield, MA.
- 2019 Master of Science, Northeastern University, Boston, MA.

Teaching & Assistantships

Instructor

- 2020 Bioinformatics Methods I (spring), Northeastern University.
- 2020 Bioinformatics Methods I (fall), Northeastern University.
- 2021 Bioinformatics Methods I (spring), Northeastern University.

Teaching Assistant

- 2018 Bioinformatics programming, Northeastern University College of Science.
- 2018 Collecting, storing, and retrieving data, Northeastern University College of Computer & Information Science.
- 2018 Introduction to data science and machine learning (spring), Northeastern University College of Computer & Information Science.

Published Software

- 2020 An interactive Bayesian Ttool for SARS-CoV2-Antibody test interpretation. Manuscript supplement, https://covid.omics.kitchen/
- 2021 ContrApption: interactive JavaScript widgets for visualizing RNA-Seq like data from a single function call in R. https://github.com/omics-kitchen/ContrApption

Publications

Accepted

2021 Evaluation of serological lateral flow assays for severe acute respiratory syndrome coronavirus-2, Supplement: https://covid.omics.kitchen/.

In preparation

- TBD miRNAs in canine mitral value disorders.
- TBD An atlas of miRNAs by tissue type.
- TBD ContrApption: interactive visualization of RNA-Seq style datasets from a single function call.

Pre-academic work

- Ran day-to-day operations of antibody production lab as sole technician
- Self-taught Python programming to automate bioinformatics tasks, saving weeks of effort and dozens of errors
- Studied and practiced antigen design under an industry leader

- Inoculated, monitored, and maintained live cultures of Acetobacter for fermentation of ethanol to acetic acid
- Redefined instrument calibration procedure by observing logarithmic trends in data previously modeled as linear
- o Formulated batches of mash to alcohol, acidity, stock, and water specifications

- o Counseled individuals aged 18-25 in their recovery from mental illness and trauma
- Provided quality assurance for medication administration and financial tracking

o Supervised nine employees during shifts and on call from home for crisis management

$${\bf Firefighter/EMT - Orange \ Fire \ Rescue \ EMS}$$

- Engaged in fire/rescue activities, structural and wildland firefighting, search operations, and trauma management
- ${\circ}$ Responded to medical emergencies, performed CPR/Basic life support, and administered medication
- Participated in search and rescue operations and trainings, including ice rescue training and boat operations

Media

2020 COVID-19 LFA Research. https://www.wcvb.com/article/boston-researchers-assess-performance-of-covid-19-antibody-tests/33625088