

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

July 2021-present **Mass General Hospital - Research Technologist**, *Alzheimer's Clinical & Translational Research*, Boston, MA.

Feb. 2020 - July '21 **Mass General Hospital - Research Technologist**, *Cardiovascular Research Center*, Boston, MA.

June 2018 - Feb. 2020 **bluebird bio - Bioinformatics & Data Science Contractor**, *Data Science Team*, 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*.

2021 **Bioinformatics Methods I (fall)**, *Northeastern University*.

Teaching Assistant

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🌐 sweeney-th.github.io • in [thadryan-sweeney-10b938a](https://www.linkedin.com/in/thadryan-sweeney-10b938a)
🐦 [ThadryanJS](https://twitter.com/ThadryanJS) • 🌐 [sweeney-th](https://sweeney-th.github.io)

- 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

Published

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

Submitted

- TBD Distinct stress-dependent signatures of cellular and extracellular tRNA-derived small RNAs (tDRs).
- TBD Elevation of Neuronal Injury Markers in Patients with Neurologic Sequelae after Hospitalization for SARS-CoV-2 Infection.
- TBD An Examination of Small RNA Expression in Multiple Tissues and Their Detection in Biofluids.

In preparation

- TBD miRNAs in canine mitral value disorders.
- TBD ContrApption: interactive visualization of RNA-Seq style datasets from a single function call.
- TBD Molecular profiling of heart failure subtypes.

Extra-professional work

- 2021 **National survivor financial security policy map and scorecard**, *The #1 obstacle to a survivor's long-term safety is financial insecurity. This means that we cannot disrupt the cycle of intimate partner violence in the U.S. until we move beyond the current focus on crisis response and prioritize policies that support financial security and long-term safety for survivors and their families. That is, we must prioritize policies that support survivor wealth.* <https://mapandscorecard.freefrom.org/>.

Media

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

Pre-academic work

Antibody Technician - New England Peptide

(Now 'Vivitide')

Sept. '15 - Sept. '17

- . 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.

Chemical Operator, Vinegar Plant - Pilgrim Foods

Mar. '15 - Sept. '15

- . 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.
- . Formulated batches of mash to alcohol, acidity, stock, and water specifications.

Asst. Manager, Peer Counselor - The Bridge of Central Mass

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(Now 'Open Sky Community Services')

Nov. '13 - Mar. '15

- . Counseled individuals aged 18-25 in their recovery from mental illness and trauma.
- . Provided quality assurance for medication administration and financial tracking.
- . Supervised nine employees during shifts and on call from home for crisis management.

Firefighter/EMT - Orange Fire Rescue EMS

Jun. '08 - Sept. '14

- . Engaged in fire/rescue activities, structural and wildland firefighting, search operations, and trauma management.
- . 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.