

## EDUCATION

**TUFTS UNIVERSITY**

PhD in Chemistry

Feb 2021 | Medford, MA

**MSc in Chemistry**

May 2018 | Medford, MA

**UNIVERSITY OF RHODE ISLAND**

BSc in Chemistry and Forensic Chemistry

May 2015 | Kingston, RI

## LINKS

Github::// jmorim

ResearchGate:://

Josh\_Morimoto

## COURSEWORK

**GRADUATE**

Separation Science

Spectroscopic Methods of Analysis

Instrumental Analysis

Organic Spectroscopy

Physical Methods in

Inorganic Chemistry

Physical Organic Chemistry

Quantum Mechanics

Professional Skills in

Chemical Research

**UNDERGRADUATE**

Instrumental Methods of Analysis

Intermediate Organic Chemistry

Advanced Organic Laboratory

Chemistry of Biological Systems

Physical Chemistry

Object-Oriented Programming

## SKILLS

**INSTRUMENTATION**LC/MS • GC/MS • MS<sup>2</sup>

Multidimensional

Chromatography

NMR Spectroscopy

IR Spectroscopy

Fluorimetry

ICP-OES • Flame AAS

**PROGRAMMING**R • Python • Java • L<sup>A</sup>T<sub>E</sub>X

## RESEARCH

**TUFTS UNIVERSITY** | Graduate Researcher

Robbat Laboratory

Sep 2015 – Present | Medford, MA

- Studied plant metabolomics as a function of environmental conditions using comprehensive 2D LC and GC/MS
- Developed gradient and multidimensional chromatographic methods
- Wrote software packages and scripts for data analyses

**UNIVERSITY OF RHODE ISLAND** | Undergraduate Researcher

Levine Laboratory

Sep 2013 – May 2015 | Kingston, RI

- Synthesized fluorescent conjugated polymers and fabricated nanoparticles for enhanced pesticide detection via fluorescence spectroscopy
- Synthesized metallo-macrocycles for enhanced detection of polycyclic aromatic hydrocarbon contaminants via fluorescence

**Dwyer Laboratory**

Jan 2013 – May 2013 | Kingston, RI

- Developed an application to measure pH based on colorimetric analysis of pH indicator strips for visually-impaired users

## EXPERIENCE

**TUFTS UNIVERSITY SENSORY AND SCIENCE CENTER** | Research Assistant

Jan 2017 – Sep 2019 | Medford, MA

- Conducted and participated in sensory analysis panels
- Developed and ran methods for quantitative analyses with LC/MS/UV and GC/MS
- Assisted in drafting research proposals

**MATTERWORKS, INC.** | Consultant

May 2019 – Oct 2019 | Cambridge, MA

- Consulted on metabolomics procedures from sample preparation to quantitative analysis

**TUFTS UNIVERSITY** | Teaching Assistant

Sep 2015 – Dec 2016, Sep 2019 – Dec 2020 | Medford, MA

- Instrumentation Specialist
  - Maintained, repaired, and trained others on departmental instruments, including a GC/MS, HPLC, ICP-OES, and Flame AAS
  - Wrote standard operating procedures for instruments
- Bioanalytical Chemistry Laboratory
  - Recorded and edited remote laboratory classes during COVID
- Organic Chemistry Laboratory
- Instrumental Analysis Laboratory (Graduate Level)
- Quantitative Analysis Laboratory

**PFIZER** | Analytical Research and Development Intern

May 2015 – Aug 2015 | Groton, CT

- Developed a biphasic dissolution testing system for drug performance evaluation

**CALISTA THERAPEUTICS, INC.** | Student Intern

May 2015 – Sep 2015 | Lincoln, RI

- Compiled physical properties for compounds screened for drug use to assess patterns in blood-brain-barrier permeability

## UNIVERSITY OF RHODE ISLAND ENROLLMENT SERVICES | Lead Student Technician

Feb 2012 – May 2015 | Kingston, RI

- Provided technical assistance to staff
- Implemented an automated inventory management and deployment system
- Trained other student technicians and authored the procedures they used
- Maintained and updated the Enrollment Services website

## AWARDS

2015 ACS Analytical Chemistry Undergraduate Award

## PRESENTATIONS

2018 Gustavus Adolphus College St. Peter, MN  
Multidimensional Chromatography/Mass Spectrometry for Studying Plant-Climate Interactions  
Hosted by Dwight Stoll

## ACTIVITIES

**ALPHA CHI SIGMA** Dec 2012 – May 2015 | Delta Alpha Chapter

- Vice President, 2014 – 2015
- Reporter, 2013 – 2014

**URI CHEMISTRY CAMP** 2014, 2015 | Kingston, RI

- Organized experiments to foster middle school-aged girls' interest in science
- Chaperoned attendees on field trips

**RI SCIENCE FAIR** 2013, 2014 | CCRI, Warwick, RI

- Judged middle and high schooler science projects

## PUBLICATIONS

- [1] J. Morimoto, M. C. Rosso, N. Kfoury, C. Bicchi, C. Cordero, and A. Robbat, "Untargeted/targeted 2d gas chromatography/mass spectrometry detection of the total volatile tea metabolome," *Molecules*, vol. 24, p. 3757, Oct 2019.
- [2] E. R. Scott, X. Li, J.-P. Wei, N. Kfoury, J. Morimoto, M.-M. Guo, A. Agyei, A. Robbat, S. Ahmed, S. B. Cash, T. S. Griffin, J. R. Stepp, W.-Y. Han, and C. M. Orians, "Changes in tea plant secondary metabolite profiles as a function of leafhopper density and damage," *Frontiers in Plant Science*, vol. 11, p. 636, 2020.
- [3] F. Stilo, G. Tredici, C. Bicchi, A. Robbat, J. Morimoto, and C. Cordero, "Climate and processing effects on tea (*camellia sinensis* L. kuntze) metabolome: Accurate profiling and fingerprinting by comprehensive two-dimensional gas chromatography/time-of-flight mass spectrometry," *Molecules*, vol. 25, p. 2447, May 2020.
- [4] E. R. Scott, X. Li, N. Kfoury, J. Morimoto, W.-Y. Han, S. Ahmed, S. B. Cash, T. S. Griffin, J. R. Stepp, A. Robbat, and C. M. Orians, "Interactive effects of drought severity and simulated herbivory on tea (*camellia sinensis*) volatile and non-volatile metabolites," *Environmental and Experimental Botany*, vol. 157, pp. 283 – 292, 2019.
- [5] N. Kamelamela, M. Zalesne, J. Morimoto, A. Robbat, and B. E. Wolfe, "Indigo- and indirubin-producing strains of proteus and psychrobacter are associated with purple rind defect in a surface-ripened cheese," *Food Microbiology*, vol. 76, pp. 543 – 552, 2018.
- [6] N. Kfoury, J. Morimoto, A. Kern, E. R. Scott, C. M. Orians, S. Ahmed, T. Griffin, S. B. Cash, J. R. Stepp, D. Xue, C. Long, and A. Robbat, "Striking changes in tea metabolites due to elevational effects," *Food Chemistry*, vol. 264, pp. 334 – 341, 2018.
- [7] W. Talbert, D. Jones, J. Morimoto, and M. Levine, "Turn-on detection of pesticides via reversible fluorescence enhancement of conjugated polymer nanoparticles and thin films," *New J. Chem.*, vol. 40, pp. 7273–7277, 2016.