

# JACKIE SHAY

## *Curriculum Vitae*

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### EDUCATION

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- Doctor of Philosophy** 2021  
Quantitative and Systems Biology: Ecology and Evolutionary Biology  
*University of California, Merced*  
Advised by Dr. A. Carolin Frank and Dr. Jason P. Sexton  
Dissertation title: Adaptation in times of stress: community responses in monkeyflowers, microbes, and classrooms.
- Master of Science** 2016  
Biological Sciences: Ecology, Evolution, and Conservation Biology  
*San Francisco State University*  
Advised by Dr. Dennis E. Desjardin  
Thesis title: Biodiversity and phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar
- Bachelor of Science** 2009  
Biological Sciences: Molecular and Cellular Biology  
*University of California, Merced*

### PUBLICATIONS

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- Accepted and in preparation*: Camfield, E., **Shay, J.E.**, et al., Joy-Centered Pedagogy: Uplifting Teaching and Learning. *Routledge*.
- In revision*: **Shay, J.E.**, Pennington, L.K., Toews, D.J., Green, E., Sexton, J.P. Climate adaptation and fitness variation are greatest at the leading edge of a species range.
- In preparation*: **Shay, J.E.**, Brooks, L.E., Sexton, J.P., Siström, M.J., Kaze, M., Frank, A.C. Spatial, temporal, and environmental variation structures native monkeyflower endophytes.
- In preparation*: Salinas, A., Frank, A.C., Sexton, J.P., **Shay, J.E.** Plant microbiomes across a species range: Are microbial communities shaped by their climate environment in *Mimulus laciniatus* (Phrymaceae)?
- Shay, J.E.**, Pennington, L.K., Mandussi Montiel-Molina, J.A., Towes, D.J., Hendrickson, Brandon T., Sexton, Jason P. (2021). Rules of plant species ranges: applications for conservation strategies. *Frontiers in Ecology and Evolution*. 9:664. doi.org/10.3389/fevo.2021.700962
- Shay, J.E.**, Pohan, C. (2021). Resilient instructional strategies: helping students cope and thrive in crisis. *Journal of Microbiology and Biology Education*. 22(1). doi:10.1128/jmbe.v22i1.2405
- Shay, J.E.**, Solis, R., García-Ojeda, M.E. (2020). Tackling real-world environmental paper pollution: a problem-based microbiology lesson about carbon assimilation. *Frontiers in Microbiology* 11: 588918. doi:10.3389/fmicb.2020.588918
- Wang Z., Ho H., Egan R., Yao S., Kang D., Froula J., Sevim V., Schulz F., **Shay J.E.**, Macklin D., McCue K., Orsini R., Barich D.J., Sedlacek C.J., Li W., Morgan-Kiss R.M., Woyke T., Sloncsewski J.L. (2019). A new method for rapid genome classification, clustering, visualization, and novel taxa discovery from metagenome. *bioRxiv*. doi:10.1101/812917
- Grace C.L., Desjardin D.E., Perry B.A., **Shay J.E.** (2019). The genus *Marasmius* (Basidiomycota, Agaricales, Marasmiaceae) from Republic of São Tomé and Príncipe, West Africa. *Phytotaxa* 414(2): 055–104. doi:10.11646/phytotaxa.414.2.1

- Frank A.C., Saldierna Guzmán J.P., **Shay J.E.** (2017). Transmission of bacterial endophytes. *Microorganisms* 5(4): 70. doi:10.3390/microorganisms5040070
- Desjardin D.E., Perry B.A., **Shay J.E.**, Newman D.S., Randrianjohany E. (2017). The Type species of *Tetrapyrgos* and *Campanella* (Basidiomycota, Agaricales) are redescribed and epitypified. *Mycosphere* 8(8): 977–985. doi:10.5943/mycosphere/8/8/1
- Sexton J.P., Montiel J., **Shay J.**, Stephens M., & Slatyer R. (2017). Evolution of ecological niche breadth. *Annual Review of Ecology, Evolution, and Systematics* 48(1): 183-206. doi:10.1146/annurev-ecolsys-110316-023003
- Shay J.E.**, Desjardin D.E., Grace C.L., Perry B.A., Grace C.L., Newman D.S. (2017). Biodiversity and phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar. *Phytotaxa* 292(2): 101–149. doi:10.11646/phytotaxa.292.2.1

## ACADEMIC & PROFESSIONAL EXPERIENCE

- 
- Resilience Research Group** 2022–present  
*University of California*
- Engage in interdisciplinary collaboration and research understanding the role between self-efficacy and community cultural wealth in student success
- Chair of Central Valley Regional Interdisciplinary Symposium on Education Research (CVRISER)** 2021–present  
*University of California, Merced*
- Manage the planning and development of the inaugural education research symposium in the California Central Valley
  - Serve as Senior Personnel on awarded NSF Grant Proposal 2207863
- Associate Director, Center for Engaged Teaching and Learning** 2020–present  
*Division of Undergraduate Education, University of California, Merced*
- Design and implement professional development pedagogy programs that promote equitable teaching practices
  - Develop and deliver services and programs for new hires, workshops on course design and assessment, and inclusive teaching
  - Serve as a contact for individual instructors seeking advice on matters related to teaching, including creating hybrid and/or online courses, individual faculty coaching, and effective delivery of class material
  - Collaborate with campus partners such as Equity, Diversity, and Inclusions Office, Student Affairs, Graduate Division, and fellow University of California Teaching Centers to develop engaging and inclusive presentations
  - Advise and train faculty, graduate students, postdocs, and staff to implement equity-minded, evidenced-based pedagogy
  - Serve as a research member of the Howard Hughes Medical Institute (HHMI) Inclusive Excellence UC Merced research team studying faculty development
  - Collaborate with all campus leaders to collect and curate onboarding materials for first-year students to promote inclusive campus curricular and co-curricular culture
  - Supervised 3 graduate teaching fellows in delivering pedagogy programming
  - Supervised 2 undergraduate consultants on web design research and marketing
  - Create, curate, and administer first-year experience modules
- Graduate Student Researcher** 2016–2021  
*School of Natural Sciences, University of California, Merced*
- Investigated community responses of endophytic communities from native endemic flowering plants in response to environmental variation and drought using molecular, bioinformatic, and fieldwork techniques
  - Led over 30 field expeditions across the Sierra Nevada

- Mentored 10 students, 7 women of color, in laboratory techniques, fieldwork, professional development, and science identity in STEM fields
  - Managed lab safety in 2 labs as dual lab safety coordinator
- U.S. Department of Energy Joint Genome Institute Summer Intern** 2017  
*USDE Joint Genome Institute, Walnut Creek, California*
- Advised by program director Dr. Zhong Wang in Research and Development department on the Genome Constellation Project
  - Created video tutorials to increase access to genomic software
  - Shared media with funding agencies to demonstrate needs for accessibility
- Harry D. Thiers Herbarium Assistant Curator** 2012–2016  
*Department of Biology, San Francisco State University*
- Performed herbarium maintenance including accessioning, labeling, digitizing, organizing, and confirming stored specimens
  - Trained 4 undergraduate researchers in digitizing procedure and handling
- Graduate Student Researcher** 2012–2016  
*Department of Biology, San Francisco State University*
- Studied systematics and phylogeny of wood-decomposing fungi from tropics using molecular, morphological, and field-based techniques
  - Led a month-long field expedition to Madagascar with local collaborators
  - Worked in a collaborative Genomics/Transcriptomics Analysis Core (GTAC)

## **FUNDING & AWARDS**

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- 2024 UC Merced Academic Senate Faculty Research Grant; Findlater (\$10,000)
- 2024 CVRISER: Deans Allocation Award (\$5000)
- 2023 UC Merced Web of Student Success: Living Learning Communities, Academic Navigators, and Learning Assistants; Dept. of Education Postsecondary Student Success Grant Program (\$3,987,967) *applied, not accepted*
- 2022 CVRISER: Central Valley Region Interdisciplinary Science Education Research Symposium; NSF Proposal 2207863 (\$49,598)
- 2021 UC Merced QSB Remote Teaching and Research Fellowship (\$250)
- 2020 UC Merced Academic Senate Faculty Research Grant; Sexton & Frank (\$10,000)
- 2020 UC Merced QSB Dissertation Incentive Award (\$580)
- 2020 UC Merced Outstanding Teacher Award (\$1000)
- 2020 UC President's Award for Outstanding Student Leadership (RadioBio)
- 2019 Sonoma Count Mycological Society Graduate Scholarship (\$1,500)
- 2019 Northern California Botanist Research Scholarship (\$1,000)
- 2019 Southern California Edison Fellowship (\$13,065)
- 2018 Sonoma County Mycological Society Graduate Scholarship (\$2,500)
- 2018 Mycological Society of America Translational Research Award (\$1,250)
- 2018 California Native Plant Society Bristlecone Chapter Mary DeDecker (\$1,000)
- 2019 UC Merced Outstanding Graduate Student Award
- 2019 Northern California Botanist Symposium Poster Competition Award (\$200)
- 2016 UC Merced Quantitative and Systems Biology Recruitment Award (\$20,106)
- 2016 UC Merced School of Natural Sciences Dean's Relocation Award (\$400)
- 2015 Sonoma County Mycological Association Graduate Scholarship (\$2,500)
- 2015 Mushrooms of Madagascar *Kickstarter* Campaign (\$7,682)
- 2014 Mycological Society of San Francisco Graduate Scholarship (\$1,000)
- 2014 SFSU College of Science and Engineering Scholarship (\$2,500)
- 2013 Robert W. Maxwell Scholarship (\$4,000)
- 2009 UC Merced Distinguished Leadership Award
- 2007 UC Merced Distinguished Student Volunteer Award

**TEACHING EXPERIENCE**

- 
- Guest Lecturer for Introductory Biology** 2024  
*School of Natural Sciences, University of California, Merced*
- Taught 2 lectures covering the fungal biology and fungal ecology sections of the organismal biology and diversity unit of introductory biology.
  - Facilitated active learning with over 250 students, including critically evaluating applications for fungal biology in various industries
  - Aligned learning outcomes to assessments, activities, and content for equitable learning experiences for all students
- Guest Lecturer for Ecological Genetics** 2024  
*School of Natural Sciences, University of California, Merced*
- Facilitated graduate-level discussions about molecular and statistical techniques necessary to successfully conduct a microbiome research study
  - Provided an overview of methods uses to measure alpha and beta diversity
  - Interpreted microbiome data from my dissertation work
- Education Researcher & Support Personnel for Introductory Biology** 2024  
*School of Natural Sciences, University of California, Merced*
- Provide engaging lectures for biology and ecology of fungi to >500 students
  - Develop accompanying in-class activities and discussion worksheets
  - Train graduate teaching assistants in supporting first-year experiences
  - Study impact of learning assistants on large discussion sections
- Co-Instructor for General Microbiology** 2018–2020  
*School of Natural Sciences, University of California, Merced*
- Created course learning outcomes based on core concepts and competencies
  - Designed a flipped, hybrid curriculum using a Backward Design approach
  - Facilitated engaging active learning including problem-based learning
  - Developed inquiry-based poster project, rubric, and peer-review milestones
  - Led discussion sessions focused on culturally responsive teaching
  - Recorded and edited content videos and managed course on Canvas
- Teaching Intern, Center for Engaged Teaching and Learning** 2017–2018  
*University of California, Merced*
- Encouraged the university community to adopt active teaching strategies
  - Participated in teacher training workshops to enhance my practice
  - Lectured to peers on teaching strategies for large classrooms
- Graduate Student Teaching Assistant for Biology** 2016–2018  
*School of Natural Sciences, University of California, Merced*
- Facilitated engaging active learning in discussions, labs, and field trips
  - Developed student-centered activities for general biology to share with TAs
  - Implemented pre- and post-assessments to measure main takeaways, points of clarification, and receive constant student feedback
- Graduate Student Teaching Assistant for Biology** 2012–2016  
*Department of Biology, San Francisco State University*
- Facilitated lab and field classes in botany and ecology
  - Served as a supplemental instructor for an optional 1-credit course that used active learning to support students through the regular course materials
- Youth Development and Health Educator** 2010–2012  
*Peace Corps, Demnat and Tiznit, Morocco, Africa*
- Built peer health education program with local nurses and teacher
  - Developed students in leadership, creativity, and community engagement
- Undergraduate Teaching Assistant for Evolution** 2008–2009  
*School of Natural Sciences, University of California, Merced*

- Developed course curriculum and materials with faculty and TAs
- Served as a learning assistant for students during lecture
- Implemented “Strange Species” series to inspire curiosity in students

**Undergraduate Biology Tutor** 2006–2008

*Tutoring Center, University of California, Merced*

- Facilitated peer-learning in anatomy, biology, evolution, and genetics
- Co-authored inaugural student tutor training manual with learning staff

**COURSES TAUGHT**

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\* *Lab-based course*; ^ *Field-based course*

**Introduction to Organismal Biology** 2024

*University of California, Merced*

- Guest lectured for 2 lectures across 2 sections for fungal biology and ecology
- Prepared assessments and activities for class, quizzes, and exams

**Scientific Teaching QSB 201** 2020–present

*University of California, Merced*

- Co-facilitated lessons on learning outcomes, assessment, and active learning
- Provided feedback on inclusive microteaching assignments

**General Microbiology BIO 120 (Co-Instructor)\*** 2018–2020

*University of California, Merced*

- Developed flipped classroom curriculum, outcomes, and course content
- Engaged students with active learning teaching both online and in-class
- Utilized Learning Glass™ and Camtasia™ for video creation and editing

**Contemporary Biology BIO 001** 2016–2017

*University of California, Merced*

- Guest lectured for fungal and plant sections of the course
- Facilitated weekly discussion with activities, learning outcomes, and reviews
- Developed activities, assessments, and review sessions for future course use

**Flora of California BIO/ESS 133\*^** 2017

*University of California, Merced*

- Guided students through plant identification and field trip excursions
- Collected plant material for identification based on plant family
- Guest lectured for soil ecology and symbiosis lectures

**General Botany BIO 220\*** 2015

*College of San Mateo*

- Co-instructor working with faculty to implement and collect evidence on evidenced-based teaching strategies
- Developed assessment-based approach to active learning
- Collected and presented data from course to SEPAL Summer Institute

**Fungi of Sierra Nevada\*^** 2015

*Sierra Nevada Field Campus, San Francisco State University*

- Supported field work expeditions and microscopic identification of fungi
- Implemented guided hands-on learning experiences for students

**Introduction to Biology II BIO 240\*** 2014–2016

*San Francisco State University*

- Taught discussion, lab, and supplemental courses
- Assisted students in lab and discussion sections component of class
- Facilitated mini-lectures, lab activities, and discussions for deeper engagement
- Supplemented learning by working strictly on active learning strategies, growth mindset, and inquiry-based learning

- Biology of the Fungi BIO 504\*^** 2014–2015  
*San Francisco State University*
- Served as an assistant to Dr. Desjardin as needed in lab or in the field
  - Provided support to students as a learning assistant
  - Collected fungi from the field or herbaria for microscopy lab
- World of Plants BIO 150\*^** 2012–2013  
*San Francisco State University*
- Guided students through lab experiments and field trips
  - Created lectures to pair with lab activities
  - Provided instruction and support for fellow teaching assistants
- Evolution BIO 141** 2008–2009  
*University of California, Merced*
- Served as a student curriculum design coordinator and learning assistant
  - Co-designed and implemented active learning
  - Assessed student academic performance data with course instructors

### **TALKS, PRESENTATIONS, & POSTERS**

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- 2024 Shay, J.E., Espinosa, J., Findlater, M. “Impact of Learning Assistants on Large Biology Discussion Sections” *Central Valley Region Interdisciplinary Symposium on Education Research*, California State University, Stanislaus, Turlock, CA
- 2022 Shay, J.E. “Improv to Reimagine Educational Development”. Workshop for educational developers. *Professional and Organizational Development Network*, Seattle, WA
- 2021 Shay, J.E. “Marvelous Mimulus Microbiomes”, *Ecological Genetics Lecture*, UC Merced, Merced, California (Invited talk)
- 2020 Shay, J.E., Frank, A.C., Sexton, J.P. “The Monkeyflower Microbiome: Insights from Community Shifts in Response to Drought” *Ecological Society of America*
- 2020 Shay, J.E. “Symbiosis and Climate Change”. *Biology Seminar*, Invited Talk, San Francisco State University, San Francisco, CA (Invited talk)
- 2020 Garcia-Ojeda, M., Shay, J.E., Zimmerman, J., Schuchardt, A., Durazo, A. “Underrepresented women students close the achievement gap in a flipped class delivered in a TEAL classroom” *Society for the Advancement of Biology Education Research*, UC Irvine, CA
- 2020 Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., Sexton, J.P., Siström, M. “Endophyte communities in the cut-leaf monkeyflower (*Erythranthe laciniata*) respond differently to drought conditions above and belowground” *Northern California Botanist Symposium*, Chico, California. (Invited talk & session Chair)
- 2019 Shay, J.E. “Fungus Among Us”, *Camp Trip Music Festival*, Weldon, CA
- 2019 Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., Sexton, J.P., Siström, M. “Endophytes shift in response to drought in monkeyflowers (*Erythranthe laciniata*) from native soil” *Mycological Society of America, Minneapolis, MN*
- 2019 Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., Sexton, J.P., Siström, M. “Endophytes shift in response to drought in monkeyflowers (*Erythranthe laciniata*) from native soil” *Symbiosis*, Yosemite National Park, CA
- 2019 Shay, J.E., Brooks, L., Kaze, M., Frank, C.A., Sexton, J.P., Siström, M. “Endophytes shift in response to drought in monkeyflowers (*Erythranthe laciniata*) from native soil” *Northern California Botanists Symposium, Chico, CA* (Poster)
- 2018 Shay, J.E., Pennington, L., Toews, D., Sexton, J.P. “Climate adaptation and fitness variation is greatest near the leading edge of a species range” *Climate Change: Ranges and Phenology*, *Ecological Society of America, New Orleans, LA*

- 2017 Shay, J.E., Newman, D.S., Grace, C., Perry, B.A., Desjardins, D. “Biodiversity and Phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar” *Marin County Mycological Society*, San Francisco, CA (Invited talk)
- 2017 Shay, J.E., Newman, D.S., Grace, C., Perry, B.A., Desjardins, D. “Biodiversity and Phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar” *Mycological Society of San Francisco*, San Francisco, CA (Invited talk)
- 2017 Shay, J.E., Newman, D.S., Grace, C., Perry, B.A., Desjardins, D. “Biodiversity and Phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar” *Fungal Genetics, Asilomar, Pacific Grove, CA* (Poster)
- 2016 Shay, J.E. “Do microbiomes influence host evolution?” Quantitative and Systems Biology Topics Final Project *University of California Merced*
- 2016 Shay, J.E., Newman, D.S., Grace, C., Perry, B.A., Desjardins, D. “Biodiversity and Phylogeny of *Marasmius* (Basidiomycota, Agaricales) from Madagascar” M.Sc. Thesis Defense. *San Francisco State University*
- 2015 Shay, J.E., Newman, D.S., Desjardin, D. “A preliminary monograph of *Marasmius* (Basidiomycota, Agaricales) from Madagascar.” *Botany 2015, Edmonton, Alberta, Canada* (Poster)
- 2015 Shay, J.E. “A Mushroom Adventure Collecting in Madagascar.” *Mycological Society of San Francisco*, San Francisco, CA (Invited talk)
- 2013 Shay, J.E. “Termitomyces and Macrotermitinae: Masters of Efficiency, an Exploration of Fungal Symbioses.” *San Francisco State University*
- 2013 Shay, J.E. “The Understory Story: Mycoheterotrophy of Ericacea.” *San Francisco State University*

#### **FACILITATED PROFESSIONAL DEVELOPMENT**

- 
- Sociology Faculty and Graduate Student Meeting: Chat GPT in Graduate Writing** 2024  
*University of California, Merced*
- Co-facilitated workshop with library staff covering academic integrity in writing, appropriate and inappropriate uses of generative AI in writing, and considerations for ethics, justice, and the environment
  - Prompted reflection on the reason for pursuing a graduate degree and the skills gained from embracing writing as a learning process and form of critical thinking
- Joy ‘Jam Sessions’ Faculty Lunch & Learn** 2023–present  
*University of California, Merced*
- Facilitate monthly discussions with faculty to recognize opportunities for promoting joy and wellbeing in the classroom and in faculty workflow.
  - Approach teaching with a focus uplifting strategies that foster joy, creativity, and flow state in students and discuss how these methods increase student success
- First-Year Composition in the Age of Generative AI** 2023–present  
*University of California, Merced*
- Engage writing faculty in a discussion about appropriate and exciting uses of AI
  - Demonstrate how to use AI for teaching writing courses
  - Emphasize the importance of designing authentic assessments
- Promoting First-Years Flourishing Learning Community** 2023–present  
*University of California, Merced*
- Engage faculty teaching first-year students in learning community covering topics related to student success including student agency, sense of belonging, cultural wealth, efficacy, and resilience
- Molecular and Cellular Biology Department Meeting: Teaching After the Strike** 2023  
*University of California, Merced*

- Engage biology faculty in a discussion about ways to simplify teaching, declutter curriculum, and find joy
  - Provide examples of how to prepare for upcoming large class size format including how to focus content on meaningful experiences and align assessments to outcomes
- Advanced Pedagogy (Spring semester workshop series)** 2022–present  
*University of California, Merced*
- Prepare graduate students and postdocs for their future teaching careers
  - Customize the program to meet each participant’s specific needs
  - Mentor each participant through goal setting and check-ins
  - Cover topics in course design, student-centered syllabi, soliciting feedback from students, teaching large classes, flipping classroom, instructor presence, intersectional pedagogy and cultural wealth, and improvisation
  - Over 150 graduate students served
- Principles of Pedagogy (Fall semester workshop series)** 2021–present  
*University of California*
- Facilitate graduate students and postdocs in discussing and applying evidence-based principles of teaching to interdisciplinary scenarios
  - Encourage peer-learning through sharing lived experiences and examples
  - Over 230 graduate students served
- Mobile Summer Institute on Scientific Teaching** 2021–present  
*University of California, Merced*
- Establish safe, constructive, and positive working spaces for faculty groups
  - Manage group dynamics amongst different, strong personalities
  - Guide participants toward a common microteaching goal
  - 125 faculty served
- Course Design Institute and Learning Community** 2021–present  
*University of California, Merced*
- Advise faculty wishing to modify their courses to be more student-centered
  - Provide learning theories and research to justify teaching strategies
  - Serve as a mentor and pedagogy coach to STEM-based cohort
  - Facilitate consultations and follow-up learning communities
  - 150 faculty served
- Graduate Student Teaching Assistant Orientation** 2020–present  
*University of California*
- Introduce over 650 students to equity-minded teaching and strategies to help students feel valued, seen, and heard in class
  - Serve as first point of discussion for equity, diversity, and inclusion for graduate student at UC Merced
  - Inform students of campus resources and trainings available to them
  - Provide students with student-centered microteaching lesson
  - Monitor and report student progress through Canvas
- Reflecting on Anti-Racist Pedagogy** 2020–present  
*University of California, Merced*
- Support faculty learning and unlearning through a trauma-informed approach to promote inclusion, equity, and diversity in class
- Generative AI in Writing Courses** 2024  
*University of California, Merced*
- Facilitated discussion around potential uses for generative AI tools in writing
  - Provided strategies for implementing generative AI in course design
- Cultivating Joy in Learning Workshop** 2023  
*University of California, Berkeley*



- Provided stories and discussion around deep learning, teaching, and research that uses a “joy-inspired” pedagogy approach to activate student agency, promote healing, and build community.
- Introduction to Education Research** 2022  
*University of California, Merced*
- Taught faculty new to education research how to apply for IRB approval, how to craft meaningful questions to study teaching strategies, and how to collect education research data
- Faculty Institute on Emergency Remote Teaching** 2020  
*University of California, Merced*
- Supported faculty with best practices for student-centered online teaching
  - Discussed Backward Design approach to structuring online class
  - Trained faculty on shifting courses to Canvas and Zoom environments
- Emergency Remote Learning Transition for GTAs** 2020  
*University of California, Merced*
- Provided 112 graduate teaching assistants with a training in managing courses on Canvas and facilitating classes and office hours over Zoom
  - Consulted and advised GTAs during remote transition

## **INSTITUTIONAL & PROFESSIONAL SERVICE**

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- Chair of the Diversity, Equity, and Justice Committee** 2023–present  
*Division of Undergraduate Education (DUE), University of California*
- Discuss and develop the inaugural DUE Equity Statement
  - Facilitate a value mapping workshop for all DUE staff and leaders
- Co-Chair of the Equity, Justice, and Inclusive Excellence Committee** 2023–present  
*UC Merced Alumni Association (UCMAA) Board of Directors*
- Align alumni equity engagement with campus initiatives
  - Support the development of cultural affinity groups
  - Contribute to the UCMAA Diversity Statement
- Chair of University of California Teaching Center TA/GSI Group** 2022–present  
*Center for Engaged Teaching and Learning, University of California*
- Organize teaching and learning center staff across the 10 University of California campuses to discuss, develop, and promote effective and inclusive professional development for graduate student and postdoctoral instructors
- Committee Member for the Distinguished Undergraduate Teaching Awards** 2022–present  
*University of California, Merced*
- Annually reviewed nominations and selected recipients for both Senate and Non-Senate Faculty teaching awards
- Session Chair American Educational Research Association Conference** 2022  
*San Diego State University*
- Title: Student Narratives within STEM: Context, Learning, and Sense-Making
- COVID-19 Emergency Remote Learning Transition Training for GTAs** 2020  
*University of California, Merced*
- Developed and lead emergency remote training sessions to assist fellow graduate teaching assistants as they transition their classes to online learning
  - Coordinated with campus resources to schedule and advertise trainings
  - Taught 30 graduate students and 3 faculty in six different hour-long sessions
  - Interviewed about increasing engagement in emergency remote learning  
<https://cetl.ucmerced.edu/node/14081>
- Session Chair for Northern California Botanist Symposium 2020 Meeting** 2020  
*California State University, Chico*

- Invited by board members to chair the session
  - Coordinated a diverse panel of for the *Plant-Biotic Interactions* Session
  - Established a growing interest in microbe-associated plant interactions
- Graduate Student Representative for Quantitative and Systems Biology** 2018–2020  
*University of California, Merced*
- Served on the Quantitative and Systems Biology (QSB) Council to discuss affairs relevant to biology graduate students
  - Served as a liaison between the QSB Council and Graduate Association
  - Served as a point of contact for all graduate students in the largest program at UC Merced to voice their concerns and suggestions
- Merced Vernal Pools and Grassland Reserve Docent** 2019–*present*  
*University of California, Merced*
- Lead tours of the Merced Vernal Pools and Grassland Reserve (MVPGR) for classes, donors, potential students and their families.
  - Center discourse around vernal pool history, ecology, and amphibious biology
- CBEST Summer Bridge Program for Elementary School** 2019  
*University of California, Merced*
- Provided accessible science education to a traditionally underserved community of the Central Valley of California
  - Developed an interactive discussing about plant biology for 3<sup>rd</sup> and 4<sup>th</sup> graders
  - Worked closely with undergraduate interns to facilitate the program
- UC Merced W-STEM** 2016–2018  
*University of California, Merced*
- Mentor and mentee for women of color in STEM
  - Established a culture of community, generosity, and compassion among peers
  - Advised undergraduate mentees to develop sense of belonging, productivity skills, and motivation to pursue STEM careers
- University Committees and Other Alumni Services**
- Search Committee for the Vice Provost and Dean of Graduate Division 2022
  - Research Week Planning Committee 2017–2020
  - Invited reviewer for Plant Systematics and Evolution 2019
  - Search Committee for the Executive Vice Chancellor and Provost 2018
  - Search Committee for Dean of School of Natural Sciences 2017
  - Review Board for the Office of the Vice Chancellor of Student Services 2017
  - Vice President UC Merced alumni Association Board 2016–2018
  - Director UC Merced Alumni Association Board 2012–2018, 2021–*present*

## **PROFESSIONAL DEVELOPMENT & TECHNICAL TRAINING**

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- 2024 Countering Islamophobia and Antisemitism; UC Merced
- 2023 Awe in Education: Creating Learning Environments that Inspire, Motivate, and Heal; Greater Good Science Center's Education
- 2022 Inclusive STEM Teaching Project; edX
- 2022 Managing Implicit Bias; UC Merced
- 2020 Graduate Division Dissertation Boot Camp; UC Merced
- 2019 Regional Summer Institute on Scientific Teaching; UC San Diego
- 2019 Collaborative Institutional Training Initiative Social-Behavioral-Educational
- 2019 Illumina Metagenomic Sequencing Workshop; UC Merced
- 2018 Data Carpentry Workshop; UC Merced
- 2018 Introduction to Computation Workshop; UC Merced
- 2018 Botanical Illustration Workshop; California Native Plant Society Meeting
- 2017 NSF Interdisciplinary Computational Graduate Education Program; UC Merced

- 2015 Science Education Partnership and Assessment Laboratory Institute; SFSU  
 2015 Macro nature photography summer course; SFSU Sierra Nevada Field Campus  
 2014 John Muir Laws workshop on Nature Journaling; San Francisco  
 2014 Fungi of Sierra Nevada summer course; SFSU Sierra Nevada Field Campus

### **SYNERGISTIC EXPERIENCES**

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- RadioBio Podcast** 2017–2022  
*University of California, Merced*  
 - Founded RadioBio, a graduate student-led biology-themed podcast that discusses biology from molecules to ecosystems  
 - Developed and executed all events associated with the RadioBio podcast including community outreach events, science showcases, and art exhibitions  
 - Co-invited diverse speakers to UC Merced with Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)  
 - Nationally recognized science podcast by NSF's Science360
- Vice President and Chair of Annual Fungus Fair** 2014–2017  
*Mycological Society of San Francisco, San Francisco, California*  
 - Ran a 2-day education far with 3 committees and over 2500 guests  
 - Invited diverse researchers and fungal experts to the speaker series  
 - Served as a point of contact for all divisions
- Delta Epsilon Mu: Founder & Vice President** 2006–2009  
*University of California, Merced*  
 - Established UC Merced's first co-ed pre-health professional fraternity  
 - Served as the founding executive committee  
 - Maintained alumni relations with current organization
- University Women of Merced Network: Founder & President** 2006–2009  
*University of California, Merced*  
 - Offered community and support women's needs at UC Merced  
 - Directed and performed *The Vagina Monologues* annually to raise money for local women's shelter and raise awareness of women's issues
- Counselor and Wrangler** 2006–2009, 2012  
*Cheley Colorado Camps, Estes Park, Colorado*  
 - Led 12 campers in overnight horse expeditions in the Colorado Rockies  
 - Planned and managed overnight logistics for campers and horses  
 - Communicated critical safety expectations for expeditions
- Acting and Stage Presence**  
 - Performed in, created, or directed over a dozen plays and musicals 1999–2016  
 - Induction to the International Thespian Society 2004  
 - Meisner Technique Acting Classes 2002–2003  
*The Ruskin School of Acting, Santa Monica, California*

### **CURRENT PROFESSIONAL MEMBERSHIPS**

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- 2022 Professional and Organizational Development Network  
 2021 American Educational Research Association  
 2019 Society for the Advancement of Biology Education Research  
 2018 Ecological Society of America  
 2015 Mycological Society of America  
 2013 California Native Plant Society

**RESEARCH INTERESTS**

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Biodiversity | Fungi | Symbiosis | Ecology | Evolution | Taxonomy | Systematics | Mycology  
Fieldwork | Endophytes | Climate Change | Microbiology | Pedagogy | STEM Education

**TECHNICAL SKILLS**

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R Studio | QIIME2 | Command Line | Bioinformatics | Ecological Statistics | Canva | Adobe  
Illustrator | DNA Extraction | Primer Design | Sanger Sequencing | Illumina High Throughput  
Sequencing | Instructional Videos | Podcasting | Learning Glass | Canvas LMS | Growth  
Chambers | Greenhouse | Plant & Fungal Collection | Herbarium Management & Acquisitioning  
Fungal Culturing | Course Design | Inclusive STEM Teaching | Culturally Responsive Teaching  
Project-Based Learning | Implementing Learning Assistants | Course-Based Research Experience