

Education

- 2015–2021 **Ph. D (Physics)**, *University of California, Merced*.
Thesis: From Microbes in Motion to Pumas in Pursuit of Prey: Foraging Phenomena in Interactive Multi-agent Systems
Advisor(s): Prof. Ajay Gopinathan (Physics, UC Merced) and Dr. Justin Yeakel (Life and Environmental Sciences, UC Merced).
- 2010–2015 **Int. BS-MS (Physics)**, *Indian Institute of Science Education and Research, Thiruvananthapuram (IISER TVM), India*.
Thesis: Environmental Effects in Excitonic Energy Transfer

Academic Appointments

- 2021–2022 Staff researcher, Department of Communication, UCLA
2022–2024 Postdoctoral researcher, Department of Communication, UCLA

Other Academic and Professional Activities

- Course development Developed computational course modules for PHYS 204, Biophysics at UC Merced
- Summer/Fall 2020, 2021 CCBM Virtual Sessions: Facilitated workshops titled 'Understanding Living Systems through Scientific Computing' (2020) and 'The Science of Flocks and Swarms' (2020, 2021) as part of the Center for Cellular and Biomolecular Machines (CCBM) Summer/Fall Virtual Sessions, with Prof. Ajay Gopinathan

Awards and Fellowships

- 2021 **Steve and Mia Kang Student Leadership for Social Change Prize**, *Margo F. Souza Student Leadership Center, UC Merced*.
- 2021 **Building Community Award**, *Margo F. Souza Student Leadership Center, UC Merced*, (awarded to the UC Merced Graduate Student Association).
- 2021 **Outstanding Student Service and Outreach Award**, *Department of Physics, UC Merced*.
- 2021 **UC Merced GradSLAM Top 10 Finalist**, *UC Merced*.
- 2021 **Graduate Dean's Dissertation Fellowship**, *UC Merced*.
- 2020–2021 **CCBM Scholar**, *Center for Cellular and Biomolecular Machines (CCBM), UC Merced*.
- 2019, 2020 **GRAD-EXCEL Peer Mentorship Program Award**, *UC Merced*.
- 2019 **Graduate Fellowship Incentive Program Award**, *UC Merced*.
- 2019 **Travel award through the Dean's office**, *UC Merced*.
- 2018, 2019 **APS DBIO Student Travel Award**, American Physical Society (APS).
- 2018 **Broadening Participation Committee Travel Award**, Society for Integrative and Comparative Biology (SICB).
- 2018 **Charlotte Mangum Student Support Program Award**, SICB.
- 2017, 2018, 2019 **UC Merced Physics Summer Fellowship**, *UC Merced*.
- 2017, 2018, 2020 **UC Merced Physics Travel Award**, *UC Merced*.
- 2016 **Top performer in Physics prelims and Physics core courses**, *UC Merced*.
- 2015–2016 **Graduate Group Recruitment Fellowship**, *UC Merced*.
- 2010–2015 **INSPIRE Fellowship**, Department of Science and Technology, Govt. of India.
- 2013 **DAAD WISE Fellowship 2013**, DAAD (was unable to pursue).

Publications

1. **VPS Ritwika**, Gina Pretzer, Sara Mendoza, Tim Shea, Christopher Shedd, Christopher Kello, Ajay Gopinathan, Anne Warlaumont. **Exploratory dynamics of vocal foraging during infant-caregiver communication.** ¹ Scientific Reports. 10(1):1–14, 2020.

2. **VPS Ritwika**, Ajay Gopinathan, Justin D. Yeakel. **Fitness Trade-offs of Predation: When to Scavenge and When to Steal.** *Journal of Animal Ecology*. *In Review*. [Preprint DOI: 10.22541/au.169322988.80692906/v2]

Conferences and Seminars

- 04/2024 Environmental Sciences Undergraduate Seminar Series, UC Merced (Invited seminar talk)
03/2023 Society for Research in Child Development Biennial Meeting, Salt Lake City, Utah (Poster)
02/2023 UCLA Comm Brown Bag Series, UCLA Department of Communication (Invited talk)
03/2021 APS March Meeting, Chicago (Talk)
03/2020 APS March Meeting (Talk, presented virtually in Physics of Social Interactions)
03/2019 APS March Meeting, Boston, MA
08/2018 Ecological Society of America (ESA) Annual Meeting, New Orleans, LA (Talk)
04/2018 Central Valley 2018 SIAM Regional Student Conference, UC Merced (Poster)
03/2018 APS March Meeting, Los Angeles, CA (Talk)
01/2018 Gordon Research Conference on Predator-Prey Interactions, Ventura, CA (Poster)
01/2018 SICB Annual Meeting, San Francisco, CA (Talk; also substitute co-chair of session Social Behavior)
11/2017 APS Far West Section Annual Meeting, UC Merced (Talk)
10/2017 UC Merced SIAM Student Chapter Seminar Series (Talk)
03/2017 APS March Meeting, New Orleans, LA (Talk)
02/2015 Young Quantum (YouQu), Harish-Chandra Research Institute (HRI), Allahabad, India (Poster)
12/2011 Young Ecologists Talk and Interact (YETI), IIT Guwahati, Assam, India (Poster)

Workshops and Schools

- Spring 2021 Spring 2021 Institute for Evidence-Based Teaching Practices, UC Merced
03/2021 Mathematical and Computational Approaches to Social Justice (held virtually), The Institute for Computational and Experimental Research in Mathematics, Brown University
12/2019 Complex Networks Winter Workshop, Quebec City, Canada
11/2019 CCBM Workshop on Emerging Themes in Cellular and Biomolecular Machines, UC Merced
Summer 2017 CCBM-CREST Summer Workshop: Introduction to Scientific Computing
Summer 2019 Santa Fe Institute Complex Systems Summer School

Technical and Computer Skills

MATLAB, R, Mathematica, L^AT_EX, NetLogo, Python, Julia, Perl

Outreach and Service

- 07/22–present Board Member, UC Merced Alumni Association
05/20–present Graduate Treasurer, W-STEM, UC Merced
05/20–present International Affairs Officer, UC Merced Graduate Student Association
05/20–present Graduate Treasurer, W-STEM, UC Merced
05/20–present International Affairs Officer, UC Merced Graduate Student Association
05/20–present Graduate Treasurer, W-STEM, UC Merced
01/20–05/20 Graduate student member, Graduate Council, UC Merced
05/19–05/20 President, UC Merced Graduate Student Association
05/19–01/20 Graduate student member, Transportation and Parking Services Committee, UC Merced
08/17–05/18 Mentor, Women in STEM (W-STEM) Mentorship Program, UC Merced
04/2017 Volunteer, Center for Cellular and Biomolecular Machines (CCBM) outreach event (Burbank/Peterson elementary schools' visit to UC Merced campus)
08/17–05/20 Treasurer, Merced Indian Graduate Student Association
2017 Co-organiser and website lead, Merced March for Science
08/16–05/17 Member and website lead, BiotaQ: The UC Merced Science Collaborative
08/10–05/15 Editor, *Sopanam* (College magazine, IISER TVM)

¹American Physical Society (2020, Feb 28). *Tracking communication networks and the diffusion of information* [Press release]. Retrieved from https://www.eurekalert.org/pub_releases/2020-02/aps-tcn022820.php; Lorena Anderson (2020, April 16). *Babies Forage for Sounds That Contribute to Language Acquisition, Study Shows* [Press release]. Retrieved from <https://news.ucmerced.edu/news/2020/babies-forage-sounds-contribute-language-acquisition-study-shows>; UC Merced Communications (2020, April 20). *Babies forage for sounds that contribute to language acquisition, UC Merced shows* [Press release]. Retrieved from <https://www.mercedsunstar.com/news/local/education/uc-merced/article242124436.html>