

Curriculum Vitae
Akshay Rajeev
ar942@cornell.edu • [rajeevakshay.github.io](https://github.com/rajeevakshay)

EDUCATION

Cornell University **New York, USA**
PhD in Atmospheric Sciences
2022 – present
Advisor: Angeline Pendergrass, Assistant Professor, Cornell University

Indian Institute of Technology (IIT) Gandhinagar **Gujarat, India**
Master of Technology in Earth System Sciences
2019 – 2021
GPA: 8.60/10
Dissertation title: ‘On the causes of tropical cyclone driven floods in India’
Advisor: Vimal Mishra, Professor, IIT Gandhinagar

Pondicherry University **Pondicherry, India**
Master of Science in Applied Geology (5-Year Integrated)
2013 – 2018
GPA: 8.61/10
Dissertation title: ‘Petrogenesis of Neoproterozoic Granitoids from Sankaridurg: Constraints from Petrography and Whole-rock Trace Element Study’
Advisor: Rajneesh Bhutani, Professor, Pondicherry University

ADDITIONAL TRAINING

Indian Institute of Remote Sensing (IIRS-ISRO) **Uttarakhand, India**
Post Graduate Diploma in Remote Sensing and GIS
2018 – 2019
Specialisation: Atmospheric and Marine Sciences
Project title: ‘Assessment of model simulated dust using satellite data’
Advisor: Charu Singh, Scientist-SF, IIRS-ISRO

Indian Institute of Technology (IIT) Bombay **Mumbai, India**
Summer Internship
May – July 2016
Project title: ‘Hydrothermal alteration and pseudomorphic replacement textures of metabasalts from the Nellore Schist Belt, Southeastern India.’
Advisor: Prabhakar Naraga, Assistant Professor, IIT Bombay

WORK EXPERIENCE

Cornell University **New York, USA**
Teaching Assistant
August 2022 – Present
EAS 1540: Introductory Oceanography (Lab); EAS 2500: Meteorological Observations and Instruments

Indian Institute of Technology (IIT) Gandhinagar **Gujarat, India**
Research Fellow
July 2021 – June 2022
Working on hydroclimatic extremes associated with tropical cyclones in India.
Advisor: Vimal Mishra, Associate Professor, IIT Gandhinagar

RESEARCH PUBLICATIONS

Ambika, A.K., **Rajeev, A.** & Huber, M. “Global warming drives extreme moist heat during the Indian Summer Monsoon” (In Review)

Rajeev, A. & Mishra, V. “Increasing risk of compound wind and precipitation extremes due to tropical cyclones in India” *Environmental Research: Climate* (2023) <https://doi.org/10.1088/2752-5295/acf2e>

Rajeev, A. & Mishra, V. “Observational evidence of increasing compound tropical cyclone-moist heat extremes in India.” *Earth's Future* (2022) <https://doi.org/10.1029/2022EF002992>

Rajeev, A., Mahto, S.S. & Mishra, V. Climate warming and summer monsoon breaks drive compound dry and hot extremes in India. *iScience* (2022) <https://doi.org/10.1016/j.isci.2022.105377>

Rajeev, A. & Mishra, V. “On the causes of tropical cyclone driven floods in India”, *Weather and Climate Extremes* (2022)

Rajeev, A., Singh, C., Singh, S.K. et al. “Assessment of WRF-CHEM Simulated Dust Using Reanalysis, Satellite Data and Ground-Based Observations.” *Journal of Indian Society of Remote Sensing* (2021). <https://doi.org/10.1007/s12524-021-01328-3>

CONFERENCE PRESENTATIONS

Rajeev, A. and Mishra, V.: Compound Events of Tropical Cyclone and Flooding in India, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-15759, <https://doi.org/10.5194/egusphere-egu21-15759>, 2021.

LEADERSHIP EXPERIENCE

Cornell Engineering Leadership Program

New York, USA

A member of the 2023 cohort undertaking leadership training as part of a highly selective program to develop competencies in self-management, collaboration, leadership, and professional skills to make an impact in the world.

Global Action Impact Association, Cornell University Competition Coordinator

New York, USA

October 2022 – present

Organize a national competition that empowers college teams to conceive, design, prototype, and execute high-impact solutions for global sustainability. Coordinate with field experts and competition teams to help implement sustainable solutions to disadvantaged communities.

Horizons Wall Magazine, Pondicherry University

Pondicherry, India

Co-founder and editorial board member

2015 – 2017

Organize a national competition that empowers college teams to conceive, design, prototype, and execute high-impact solutions for global sustainability. Coordinate with field experts and competition teams to help implement sustainable solutions to disadvantaged communities.

FELLOWSHIPS & AWARDS

Cash Award (₹25,000) for Journal Publication (for Rajeev & Mishra, 2022), IIT Gandhinagar	2023
Cash Award (₹25,000) for Journal Publication (for Rajeev et al., 2021), IIT Gandhinagar	2021
107 th Rank in the All-India Level Scholarship Examination conducted by the National Council for Development of Education	2012
Silver Medal for National Level Science Olympiad	2004

ACHIEVEMENTS

Qualified Graduate Aptitude Test in Engineering (Geology & Geophysics)	2019
Qualified CSIR-UGC National Eligibility Test (Lectureship) in Earth Sciences	2018

TECHNICAL SKILLS

Programming languages and mathematical packages: Matlab, Python

GIS software and tools: ArcGIS (with Python), QGIS, ENVI, Google Earth Engine (Javascript & Python API)

Hydrological modelling: Variable Infiltration Capacity (VIC) Model, RVIC routing model

Others: Geographical Mapping Tool (GMT), Climate Data Operator (CDO)

LANGUAGES

Malayalam (Native), English (Fluent), Hindi (Fluent), French (Basic), Spanish (Basic)

EXTRACURRICULAR ACTIVITIES

- Volunteer in the Green Club at IIT Gandhinagar
- Won several English Story Writing competitions at School and sub-district level.
- Origami