

**Curriculum Vitae**  
**Akshay Rajeev**  
[ar942@cornell.edu](mailto:ar942@cornell.edu) • [akshayrajeev1.github.io](https://github.com/akshayrajeev1)

## EDUCATION

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**Cornell University**

*PhD in Atmospheric Sciences (Minor in Ecohydrology & Remote Sensing)*

**GPA:** 3.54/4.00 (Fall '24) [Anticipated Spring 2027]

**Advisor:** Angeline Pendergrass, Assistant Professor, Cornell University

**New York, USA**

2022 – present

**Indian Institute of Technology (IIT) Gandhinagar**

*Master of Technology in Earth System Sciences*

**GPA:** 8.60/10

**Dissertation title:** 'On the causes of tropical cyclone driven floods in India'

**Advisor:** Vimal Mishra, Professor, IIT Gandhinagar

**Gujarat, India**

2019 – 2021

**Pondicherry University**

*Master of Science in Applied Geology (5-Year Integrated)*

**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

**Pondicherry, India**

2013 – 2018

## ADDITIONAL TRAINING

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**Indian Institute of Remote Sensing (IIRS-ISRO)**

*Post Graduate Diploma in Remote Sensing and GIS*

**Specialisation:** Atmospheric and Marine Sciences

**Project title:** 'Assessment of model simulated dust using satellite data'

**Advisor:** Charu Singh, Scientist-SF, IIRS-ISRO

**Uttarakhand, India**

2018 – 2019

**Indian Institute of Technology (IIT) Bombay**

*Summer Internship*

**Project title:** 'Hydrothermal alteration and pseudomorphic replacement textures of metabasalts from the Nellore Schist Belt, Southeastern India.'

**Advisor:** Prabhakar Naraga, Associate Professor, IIT Bombay

**Mumbai, India**

May – July 2016

## WORK EXPERIENCE

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**Cornell University**

**Teaching Assistant**

EAS 1540: Introductory Oceanography (Fall'22);

EAS 2500: Meteorological Observations and Instruments (Spring'23)

**New York, USA**

2022 – 2023

**Indian Institute of Technology (IIT) Gandhinagar**

**Research Fellow**

Hydroclimatic extremes associated with tropical cyclones in India.

**Advisor:** Vimal Mishra, Professor, IIT Gandhinagar

**Gujarat, India**

July 2021 – June 2022

## RESEARCH PUBLICATIONS

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6) Ambika, A.K., **Rajeev, A.** & Huber, M. "Global warming drives extreme moist heat during the Indian Summer Monsoon" *Earth's Future* (2024) <https://doi.org/10.1029/2024EF004673>

5) **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/accf2e>

4) **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>

3) **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>

2) **Rajeev, A.** & Mishra, V. "On the causes of tropical cyclone driven floods in India", *Weather and Climate Extremes* (2022) <https://doi.org/10.1016/j.wace.2022.100432>

1) **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**

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**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**

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### **Cornell Engineering Leadership Program**

**New York, USA**

January-December 2023

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.

Project: "The City of Ithaca Building Performance Standards Proposal for existing buildings"

### **Global Action Impact Association, Cornell University**

**New York, USA**

#### **Communications Lead**

2022 – 2024

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

Lead the design and content management of a wall magazine focusing on the field of Earth Sciences that is functional in the Department of Earth Sciences, Pondicherry University.

## **MENTORSHIP**

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Max Masleyev, Undergraduate researcher, Cornell University

August 2023 – present

## **FELLOWSHIPS & AWARDS**

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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<sup>th</sup> 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**

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Qualified Graduate Aptitude Test in Engineering (Geology & Geophysics) 2019

Qualified CSIR-UGC National Eligibility Test (Lectureship) in Earth Sciences 2018

## **TECHNICAL SKILLS**

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**Programming languages and mathematical packages:** Python, MATLAB

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

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

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

## **LANGUAGES**

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Malayalam (Native), English (Fluent), Hindi (Fluent), Tamil (Basic)

## **EXTRACURRICULAR ACTIVITIES**

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- Story writing
- Ukulele
- Origami