

# RUOYU LI

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NYU graduate student pursuing a degree in urban data science, specializing in remote sensing, spatial analytics, and environmental research. Advocate for light pollution control. Experienced with startups and NGOs.

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## SKILLS

Machine Learning | Spatial Analytics | Causal Inference | Remote Sensing: Nightlight, Hyperspectral & LiDAR

**Tools:** Python | R | MATLAB | Java | Google Earth Engine | ArcGIS Pro | QGIS | CloudCompare | Tableau | Alteryx

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## EDUCATION

**New York University**, *New York, NY* | *Expected May 2026*

- **MS, Applied Urban Science and Informatics**, Center for Urban Science + Progress (CUSP), Tandon
- **Honors:** Tandon's highest merit scholarship | CUSP Experiential Scholars
- **Capstone:** Urban Colocation Intelligence: Mapping Amenity Clusters and Dependency Networks Using Open-Source POI Data (Project Sponsor: Foster + Partners & NYU)
- **Activities:** American Society for Photogrammetry and Remote Sensing (ASPRS) NYU Chapter (Founding Treasurer) | NYC Geospatial Information Systems and Mapping Organization (GISMO) (Student & Open Tech Committee) | Vertically Integrated Projects (VIP) Urban Remote Sensing Team (Hyperspectral Image Analysis) | Public Data Challenge (Finalist) | Global Data Dive (3rd Place) | Tandon Capstone Competition (Selected) | NYU GIS Day 2025 Mapping Competition (2nd Place)
- **Volunteers:** Climate Week NYC | World Environment Day | NYC School of Data | CityCamp NYC

**Columbia University**, *New York, NY* | *Jul 2021*

- **Graduate Certificate in Advanced Business**

**University of Arizona**, *Tucson, AZ* | *May 2019*

- **BS, Mathematics | BS, Information Science and Technology**
- **Minors:** Statistics and Data Science | Finance | Computer Science
- **Certificate:** Entrepreneurship and New Venture Development
- **Honors:** Academic Distinction | Dean's List with Distinction | Dean's List | Director's List
- **Activities:** Arizona Chinese Culture Club (Co-founder & VP) | Association of Chinese Students and Scholars (Marketing Director) | McGuire New Venture Development Program (Finalist) | Putnam Mathematical Competition | Hack Arizona | Design Thinking Challenge

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## EXPERIENCES

**DarkSky International**, *Tucson, AZ*

*New York State & Beijing Chapter Leader* | *Mar 2015 - Present*

- Led advocacy efforts for light pollution control in New York State and in China.
- Established China's first International Dark Sky Community in Shenzhen.

*Information Technology Manager & Regional Engagement Associate* | *Oct 2023 - Aug 2024*

- Managed IT infrastructure to improve efficiency; provided support for staff and advocates.
- Enhanced regional engagement and developed DarkSky's China strategy.

**China Academy of Urban Planning and Design**, *Shenzhen, China*

*Intern (Research Center for Urban Lighting Planning and Design)* | *Nov 2023 - Jan 2024*

- Contributed to citywide lighting master plans and participated in public lighting art installation projects.

- Co-authored the *Urban and Rural Dark Sky Places Planning Standards*.

**Eco Green Recycle Corp., San Juan, Puerto Rico**

*Co-President | Aug 2019 - Aug 2023*

- Supervised daily operations; employed data-driven strategies to enhance production & financial performance.

**National Museum of Mathematics, New York, NY**

*Intern | Jun 2018 - Aug 2018*

- Alternated between roles in administration, museum docent, and retail assistant.

**Arizona/NASA Space Grant Consortium, Tucson, AZ**

*Research Intern (ASCEND! Program) | Sep 2014 - May 2016*

- Member of a statewide aerospace student program, design-build-fly-operate-analyze small payloads for launch from high altitude (100,000 feet) weather balloons.

**National Astronomical Observatories (NAOC), Chinese Academy of Sciences (CAS), Beijing, China**

*Research Intern | Jun 2015 - Jul 2015*

- Participated in a sky survey research project, learned data processing, and studied professional telescope operations on-site.

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## RESEARCH PROJECTS

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**In progress:**

- Urban Colocation Intelligence: Mapping Amenity Clusters and Dependency Networks Using Open-Source POI Data (Capstone)
- The Causal Effect of Lighting Policy on Nighttime Brightness Temporal Change
- Automated Hyperspectral Assessment of Pavement Conditions
- Greener NYC: An Analysis of Urban Green Spaces and Public Health Outcomes
- Characterizations of International Dark Sky Communities in the U.S.

**Finished:**

- Map the NYC 2025 Primary & General Mayoral Election - Open-Source NYC Mayoral Real-Time Election Night Results Mapping at the Election District (ED) Level
- Impact of COVID-19 on Urban Mobility: A Spatial Analysis of Citi Bike Ridership Changes in New York City
- Hidden Exposure: Personal Air Pollution Monitoring Reveals Gaps in Public Urban Sensing Systems
- Light Pollution Indicator Weighted by Urban Development Level
- Airport Heat Island: Phoenix, Dallas, and NYC
- Awareness of Privately Owned Public Spaces (POPS)
- Implementing Advanced Catalytic Plastic Recycling Technology in New York City (Business Case Analysis)

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## PUBLICATIONS & PRESENTATIONS

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**Author:**

- Li, R. (2022, June 20). Dark Sky State: Arizona, US, *Chinese National Astronomy*, 16(6), 30-33.

**Organizer, Planning Committee, & Host:**

- DarkSky Global Conference, *Virtual, 2021 & 2023*
- Forum for the Dark and Quiet Sky Protection, International Year of Basic Sciences for Sustainable Development (YBSSD), *Hebei, China, 2023*
- International Dark Sky Week x NYU CUSP, *New York, NY, 2025*
- Climate Week NYC x SEE the Future Forum: Entrepreneurship and Coalition-Building for Global Climate Action, *New York, NY, 2025*

**Interviewee:**

- Bi-City Biennale of Urbanism/Architecture (UABB) of Shenzhen and Hong Kong, 2022
- *News and Science*, Hunan TV, 2024
- Island Stars, 2025
- New York Times, 2025

**Invited Speaker:**

- Student Seminar, National Astronomical Observatories (NAOC), CAS, *Beijing, China, 2015*
- Academic Salon, Youth Innovation Promotion Association, NAOC, CAS, *Beijing, China, 2022*
- “Under One Sky” Live Event, UABB of Shenzhen and Hong Kong, *Guangdong, China, 2022*
- Forum for the Dark and Quiet Sky Protection, IYBSSD, *Hebei, China, 2023*
- The Fifth Star Party of the Yangtze River Delta, *Zhejiang, China, 2023*
- Hangzhou High School, *Zhejiang, China, 2023*
- Ningbo Haishu District Government, *Zhejiang, China, 2023*
- Yangzhou Urban Lighting Management Office, *Jiangsu, China, 2023*
- Guangdong-Hong Kong-Macao Greater Bay Area Dark Sky Astronomy Festival, *Guangdong, China, 2024*
- Brooklyn Heights Garden Club, *New York, NY, 2025*
- Dark Sky and Territorial Spatial Planning (class), Guangzhou University, *Guangdong, China, 2025*

**Speaker, Poster, & Lighting Talk:**

- DarkSky Global Conference, *Phoenix, AZ, 2015 / Tucson, AZ, 2016 / Boston, MA, 2017 / Salt Lake City, UT, 2018*
- NYC Open Data Week x GISMO, *New York, NY, 2025*
- Tandon Capstone Showcase, *New York, NY, 2025*
- CUSP Summer Research Showcase, *New York, NY, 2025*