

Bijaya Chandra Luitel

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Education

- 2019 – **Bachelor of Science** Yale-NUS College, Singapore
Physical Sciences Major, Projected Graduation in May 2023
- 2016 – 2018 **Cambridge International Advanced Levels** Chelsea International Academy, Kathmandu, Nepal
A* in A-level Physics, Mathematics, Computer Science and Chemistry. B in AS-Level English Language.

Research Experience




- May 2020 - July 2020 **Summer Research Program**, Yale-NUS College
Continued research done during the semester. This involved doing extensive literature review about my object of interest, called the Cosmic Eye, and improvement of calibrations. Calibrated science measurements were then processed and made into images in order to probe the CO(1-0) line in the Eye.
- January 2020 - May 2020 **Research Assistant**, Yale-NUS College
Worked with Dr. Chelsea Sharon on a project involving resolving the CO(1-0) tracer in a Lyman Break redshift galaxy. Duties included setting up CASA, an application used extensively in radio astronomy research, and calibrating measurement sets obtained from the VLA. Skills learnt include basic programming in shell and python as well as a basic idea of how radio observations are taken.
- July 2018 – July 2019 **Research Intern**, Kathmandu Institute of Applied Sciences, Kathmandu, Nepal
Helped create drought maps for Nepal for the timeline of 2000 - 2015. Drought maps were created using a combination of ArcGIS for data processing and R for data visualization. The drought maps produced correspond to different drought indices such as the NDVI (Normalized Difference Vegetation Index) and the DSI (Drought Severity Index), which were chosen after a careful literature review.
Deliverables: Mapped output of DSI and SPI (Standardized Precipitation Index), and the correlation coefficients between the two indices.

Skills

- Languages **Professional Proficiency** in English and Nepali. **Conversational Proficiency** in Hindi. **Limited Proficiency** in German.
- Coding **VisualBasic**, Python, R, HTML.

Miscellaneous Experience

Awards and Achievements

- 2017  **Honourable Mention**, 11th International Olympiad on Astronomy and Astrophysics
-  **Highest Mark in Nepal**, AS-Level Chemistry, AS-Level Computer Science and Best Across 4 AS Levels in May 2017 CAIE Exam Series
- 2016  **Honourable Mention**, 10th International Olympiad on Astronomy and Astrophysics.

Volunteer Experience

- May 2020 –  **Project Member** Near Earth Objects Project Group, Space Generation Advisory Council (SGAC)
Duties include designing programs to raise awareness about Near Earth Objects, and representing the SGAC in events. Took part in the Mars City State Design Competition.
- November 2019 –  **Treasurer** Yale-NUS College UN Society
Founding executive committee member of UN Society. Highlights for our first semester include session for SDG awareness and human rights week, a week-long set of activities that probed different aspects of human rights, from an info session on existing crisis such as the Rohingya crisis, to the discussion of humanitarian law.
- January 2017 – July 2019  **Junior Member** Nepal Astronomical Society
Participated in some asteroid search programs. Part of the committee for the National Astronomy Olympiad in 2018 and 2019, utilizing my experiences from previous olympiads to guide new students. Toured Butwal, Surkhet and Dhangadhi during IAU100 to inform students about opportunities in astronomy for school students.
- August 2018 – April 2019  **Volunteer Teacher** Ganesh Secondary School, Bhaktapur
Helped teach students part of the Mathematics, Science and Computer Science syllabi for classes 6, 7 and 8, depending on availability.