

Employment

Teaching Fellow: Data Science for Social Science Research **Ashoka University** **Jan - May 2023**

- Led weekly sessions for 90 undergraduate and postgraduate students, fostering data science skills through interactive discussions and examples.
- Provided personalised guidance and mentorship during one-to-one office hours, addressing students' individual learning needs.
- Mentored student groups in executing data science projects for social science research.
- Managed course logistics, including grading assignments and ensuring an effective learning environment.

Data Analyst **Ashoka University** **Sep - Dec 2022**

- Worked with Dr. Anustubh Agnihotri, Assistant Professor at Ashoka University, to develop metrics for assessing urban growth in Indian local bodies.
- Utilised data analysis techniques to evaluate changes in urban areas, focusing on night lights and built-up areas from 1993 to 2013.
- Applied image processing techniques to extract meaningful information from satellite images and analyse urban growth patterns.
- Built and trained machine learning models to classify urban areas, achieving a high accuracy rate for change detection analysis.

Data Science Intern **Centre for Climate Change & Sustainability(3CS)** **July - Aug 2022**

- Contributed to a project comparing the performance of different machine learning methods for detecting burned areas.
- Leveraged Python to build various spectral indices for analysis.
- Developed classification models using machine learning algorithms like Random Forest and Support Vector Machine to detect burned areas on satellite images.
- Optimised model performance through hyperparameter tuning.

Data Science Intern **Gramener** **May - June 2022**

- Conducted data analysis of consumer records to identify spatial trends and support revenue growth for a Fortune 100 company.
- Utilised Exploratory Spatial Data Analysis (ESDA) techniques to gain insights from store and consumer location data.

Teaching Assistant: GIS & Remote Sensing **Ashoka University** **Aug - Dec 2021**

- Supported a diverse 17-student GIS and RS class by managing logistics and providing personalised assistance for undergraduate and postgraduate students.
- Conducted office hours to address class doubts and offered guidance on GIS-related queries, fostering a positive learning environment.
- Utilised strong communication skills to effectively clarify complex concepts and ensure student understanding of course materials..

Data Analyst **Centre for Policy Research (CPR)** **June 2020 -Dec 2021**

- Conducted in-depth data analysis and data science tasks for research projects on South Asian empirical political economy, focusing on Indian elections.
- Utilised diverse datasets (Census, NFHS, IHDS, MGNREGA, SHRUG) to extract insights and answer research questions.
- Performed data scraping, cleaning, and visualisation to preprocess data from various sources.
- Conducted statistical analyses, including linear and logistic regression models, to identify patterns, correlations, and predictive relationships.
- Utilised Git version control for efficient data management and collaboration with the research team.

Education

Sonapat, Haryana

Ashoka University

June 2017 – Dec 2022

- Post Graduate Diploma in Advanced Research, Dec 2022
- BA Honours with Minor in Environmental Studies, May 2020
- **Relevant Course Work:** Introduction Computer Programming, AI & Data Analytics, Introduction to Machine Learning, Advanced Econometrics, Introduction to GIS, Advanced Remote Sensing

Technical Knowledge

Programming Languages

- **Python** (Proficient), **R** (Proficient), **C**, **JavaScript**, **SQL** (Familiar)
- **Tools:** Tableau, Power BI, GitHub, VS Code, Jupyter Notebook, Google Earth Engine Code (GEE), QGIS, ENVI, LaTeX, STATA,

Conferences & Publications

- Chandel, A., Sarwat, W., **Najah, A.**, Dhanagare, S., amp; Agarwala, M. (2022). Evaluating methods to map burned area at 30-meter resolution in forests and agricultural areas of Central India. *Frontiers in Forests and Global Change*. <https://doi.org/10.3389/ffgc.2022.933807>
- Panelist - *Data maps for advocacy & policymaking*, Google Geo For Good India Summit 2022