

Ludhiana, Punjab

PERSONAL PROFILE

WORK EXPERIENCE

- Aggregated the partnership statistics by Web Scraping the ESPN website
- Built dynamic Network Graphs to rank key players based on various Centrality measures
- Discovered that the IPL batting Network is very weak Dis-assortative type using the Average Nearest Neighbor Degree results
- **Technical Skills:** Python, **Data Mining**, RegEx, BeautifulSoup, Pandas, NetworkX, Pyvis, \LaTeX
- **Soft Skills:** Report writing, Presentation skills, Logical & Critical Thinking

MASTERS THESIS

Dissertation: Multi-wavelength analysis of the NGC 3227 group using AstroSat

Mohali, India

Indian Institute of Science Education and Research, Mohali

May 2022 - Apr 2023, 5 yrs

- Studied the dynamics of Star-forming galaxies within an interacting system, employing a comprehensive multi-wavelength approach
- Conducted statistical analysis on astronomical sources extracted from AstroSat-UVIT's image of galaxy NGC 3227
- Designed code** implementing an innovative approach for distinguishing faint objects between Point sources and Extended objects
- Modelled Spectral Energy Distribution model by integrating data from various astronomical missions
- Discovered an exciting Tidal Dwarf Candidate**, exclusively observable in the AstroSat data of the Far Ultraviolet band
- Effectively communicated the findings of my data analysis to the Astrophysics Thesis committee through meticulously compiled results showcased in Poster, PowerPoint, and LaTeX presentations as part of the Masters Research under the guidance of Prof. Kulinder Pal Singh
- Technical Skills:** Python, SciPy, Matplotlib, SOURCE EXTRACTOR, MAGPHYS, \LaTeX , PowerPoint
- Soft Skills:** Time Management, **Research**, Presentation skills, Report & **Thesis writing**

EDUCATION

Indian Institute of Science Education and Research, Mohali

Mohali, India

BS-MS with Major in Physics & Minor in Data Science

Aug 2018 - May 2023

- Relevant Courses:** Python programming, Analysis in one variable, Introduction to Cryptography, **Probability & Statistics**, Math methods for physicists, Statistical Mechanics, Non-linear dynamics, **Data Science, Machine Learning, Design & analysis of algorithms**

Sacred Heart Senior Secondary School

Ludhiana, India

High School

Mar 2016 - Apr 2018

- Subjects:** Physics, Chemistry, Maths and Fine Arts

SKILLS

Data Science	Python, Probability, Statistics, Linear Algebra, Data Structures & Algorithms, Data Mining
Machine Learning	Supervised & Unsupervised Learning, Feature Engineering, Deep Learning, TensorFlow, Keras
Natural Language Processing	Speech Recognition, Topic Modelling, Conversational AI
Miscellaneous	\LaTeX , Git, Linux, Microsoft Office
Soft Skills	Adaptability, Time Management, Multitasking, Problem-solving skills, Documentation, Creativity

ACHIEVEMENTS

2023	Elite , Design & Analysis of Algorithms NPTEL Exam	India
2018-2019	Volunteer , Physics experiments demonstration @ IISER Mohali Foundation Day	India
2016	Winner , Radiometer Construction @ Science Exhibition	India

INTERESTS

Art	I dedicate my free time to painting and sketching as a form of artistic expression.
Technical Writing	I began posting on LinkedIn where I combine GitHub-hosted IPython Notebooks with digital notes on ML

LANGUAGES

English	Professional proficiency
Punjabi, Hindi	Native proficiency