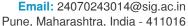


# DEBOLINA GHOSH

M.Sc. - Data Science & Spatial Analytics

Ph: +91-8336074856







# **BRIEF SUMMARY**

Master's student in Data Science and Spatial Analytics with a strong foundation in Economics. Passionate about harnessing data driven solutions for impactful decision-making, with a strong inclination toward geospatial analytics, machine learning, and big data. Adept at problem-solving, analytical thinking, and applying technical expertise to uncover meaningful insights. Seeking opportunities to contribute innovative solutions in a challenging and dynamic environment.

# **KEY EXPERTISE**

Econometrics ArcGIS Machine Learning **Economics** Data Analysis **DBMS** Python **QGIS** ArcMap

Watershed

# **EDUCATION**

**Symbiosis Institute of Geoinformatics** 

2024 - 2026

2021 - 2024

M.Sc. - Data Science & Spatial Analytics | CGPA: 7.72 / 10

The Heritage College B.Sc. Hons. - Economics - Economics (Full Time) | CGPA: 7.21 / 10

G.D.Birla Center for Education 2021

12<sup>th</sup> | CISCE | Percentage: **76** / **100** 

**G.D.Birla Centre for Education** 10<sup>th</sup> | CISCE | Percentage: **73** / **100**  2019

# **INTERNSHIPS**

# Indian Institute of Technology, Kharagpur | Academics / Research

15 May, 2025 - 15 Jul, 2025

Research Intern

Received a basic understanding of ESRI Landsat Explorer, collected massive amount of data from various sites (especially weather station data, of air quality), gained hands on experience of using instruments like Light meter, Sound meter, Testo 605I, Testo 805I and Sioutas Personal cascade. Lastly performed a literature review to have a good understanding of UHI.

#### **PROJECTS**

# Income Inequality Mapping in India

Key Skills: Python ML Mapping Economics Feature Engineering

Collected and processed district-level income data for India. Implemented and trained machine learning models including KNN, Decision Tree, and Random Forest for classification. Utilized Python for analysis and GeoPandas for geospatial data handling.

#### Multicrop Classification in Purandhar

Key Skills: Machine Learning Javascript Crop classification Google Earth Engine

Utilized Google Earth Engine (GEE) to extract and preprocess geospatial data. Developed and trained machine learning models including SmileCart and Random Forest for classification tasks. Employed JavaScript within the GEE environment for data processing and modeling.

### From Heat to Households: Mapping Urban Heat Islands and Cooling Demand using GIS in Pune

Key Skills: ArcGIS Python Machine Learning Economics Data Analysis Policy making

Collected and analyzed satellite imagery and census data to compute a ward-wise Cooling Demand Index. Integrated socio-economic indicators with cooling demand estimates to provide insights on reducing energy demand. Proposed budget-conscious policy recommendations to support sustainable urban planning.

# **SWAT Model Simulation**

Key Skills: ArcSWAT ArcGIS Watershed Hydrology ArcMap Obtained spatial dataset (DEM, Land Use, Soil, Weather Data). Used the ArcSWAT plugin to delineate the watershed and sub-basins using DEM in ArcMap. Ran a SWAT simulation model with the data and reviewed hydrology, sediment, and water quality results.

# POSITIONS OF RESPONSIBILITY

#### **Event Coordinator at NirvAl**

Event Coordinator at NirvAI, an AI club in SIG.

#### **Placement Cell Member**

SIG Placement Cell Calling-Mailing Team

# **CO-CURRICULAR ACTIVITIES**

- Member of College Dance Club- PARANT
- Event Coordinator at NirvAl- An Al club

# **EXTRA CURRICULAR ACTIVITIES**

- Learned Bharatnatyam for over 18 years. Participated in various dance and cultural festivals.
- Learned painting for over 10 years.
- Learned how to play an Euphonium and a trumpet. Performed at the Red Road Parade on Republic day in 2018.

# PERSONAL INTERESTS / HOBBIES

Actively involved in social service and charity work through Lions Club International.

# **WEB LINKS**

• Github - https://github.com/deecraft

Personal - https://deb.debarv.com

# PERSONAL DETAILS

Gender: Female
Marital Status: Single

**Current Address:** 26/247, Shivaji Co-operative Society, Ajinkyatara Mitra Mandal, 411016, Pune, Maharashtra, India -

411016

Email: 24070243014@sig.ac.in

Date of Birth: 28 Feb, 2004

Known Languages: Bengali, Hindi, English

Permanent Address: 173B/2, Dakshin Para Road, Kolkata-

700063, Kolkata, West Bengal, India - 700063

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