Satarupa Mitra

*Open to relocation

CAREER OBJECTIVE:

Seeking to obtain a career opportunity as Researcher/GIS Analyst/GIS Developer/Data Analyst/ML roles/Content Writer roles, having achieved training and experience in GIS, ML applications, and research and publications and looking forward to work in a challenging position, effectively applying my training and skills and also gaining new experience and knowledge, while contributing my skills for betterment of the organization to which I belong.

WORK EXPERIENCE:

✦ **Assistant Professor (Research) (non-teaching)**
Chandigarh University (Gharuan, Mohali, Punjab)
November 2020 – January 2022
Job Roles: **Research**, Research write-ups, Research **Publications**, **Content writing**, Satellite data downloading and processing using GIS platform for research work.

✦ **GIS Analyst (GIS software configurations & testing)**
Nobel Software Systems Private Limited (Bengaluru)
August 2019 – October 2020
Job Roles: Configurations and testing of company GIS software, **HTML** coding (basic), **SQL querying** in Couchbase for configurations, experience with AWS, map configurations using Mapbox, experience with **PostGIS** and **PostgreSQL**, intermediate experience using **MS Excel**.

MTech 6 Months INTERNSHIP (IIT Kharagpur):

December 2018 – June 2019
Project Title:
"Extraction of Building Footprint through Machine Learning"
Skills developed: Satellite data download and processing; application of R programming language in machine learning algorithms development; theoretical understanding of machine learning concepts and their applications in remote sensing and GIS studies and research.

EDUCATION:

∗ **MTech (Geoinformatics & Surveying Technology)**
September 2017 – July 2019
Symbiosis Institute of Geoinformatics (Pune, Maharashtra)

∗ **Gap Period**
August 2013 – August 2017
Home tutoring of school-level students (science group subjects and computer science topics)

∗ **MSc (Computer Technology) (Post-Graduation)**
September 2011 – July 2013
Burdwan University (Burdwan, West Bengal)

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TECHNICAL SKILLS

PROGRAMMING SKILLS
(Good Theoretical Knowledge & Intermediate Hands-on experience)
- ❖ SQL
- ❖ HTML
- ❖ PostgreSQL

PROGRAMMING SKILLS
(Good Theoretical Knowledge & Basic Hands-on experience)
- ➢ Python
- ➢ R (basic machine learning algorithms implementation such as RF, SVM, NB, ANN)
- ➢ JavaScript

REMOTE SENSING & GIS SKILLS
(Good Theoretical Knowledge & Basic Hands-on experience)
- o QGIS (analysis tools and Python plugin)
- o ArcGIS (analysis tools & ArcPy)
- o Satellite data downloading and processing
- o Use of GPS and GNSS for georeferencing
- o ERDAS for the use of photogrammetry tools
- o Statistical analysis using MS Excel and R programming
- o GrassGIS
- o Google Earth Engine

OTHER SKILLS
(Intermediate hands-on experience)
- • MS Office Products
- • Amazon Web Services
- • Couchbase (SQL querying)

* **Post Graduate Diploma in Astronomy (part time)**
  September 2011 - August 2012
MP Birla Planetarium, Kolkata
* **Spanish Language Certificate Course (part time)**
  January - June 2009
Ramakrishna Mission Institute of Culture, Kolkata
* **Bachelor of Computer Applications (Graduation)**
  September 2008 - July 2011
West Bengal University of Technology, Kolkata

PROJECT (4 months) MTech (at Symbiosis Institute of Geoinformatics, Pune):

Project Title:
"Application of Geospatial and Ground Geophysical Information for Deciphering and Mapping of Groundwater Potential Zones Using Remote Sensing and GIS Techniques"
Final Project Submission:
November 2018

CONFERENCE PUBLICATIONS:

- Prakash, P.S., Satarupa, M., Bharath., H.A., 2019. Automatic extraction of building features from UAV using artificial neural networks. In proceedings of 1st International Conference on Unmanned Aerial System in Geomatics - 2019, April 2019, IIT Roorkee Delhi, India.
- Satarupa, M., Enosh D., Aishwarya, N., Bharath., H.A., 2019. Development of Flood Inundation Map Using Geospatial Techniques. In proceedings of CCIVA Conference 2019, International Institute of Technology Kharagpur, February 2019, India.

PAPER PUBLICATIONS:

- Subrahmanya, P. P., Aithal, B. H., & **Mitra, Satarupa**. (2020). Automatic Extraction of Buildings from UAV-Based Imagery Using Artificial Neural Networks. *Journal of the Indian Society of Remote Sensing*, 1-7.
- Alireza Arabameri, Aman Arora, Subodh Chandra Pal, **Satarupa Mitra**, Asish Saha, Omid Asadi Nalivan, Somayeh Panahi, Hossein Moayedi (2021). K-Fold and State-of-the-Art Metaheuristic Machine Learning Approaches for Groundwater Potential Modelling. *Water Resources Management*.

OTHER SKILLS
(Basic and Intermediate Theoretical Knowledge)

- Machine Learning (Linear Regression, Decision Trees, Random Forest, Support Vector Machines, Naïve Bayes, Neural Networks)
- Neural Network architectures and algorithms such as: ANN, CNN, RNN
- Deep Learning Frameworks and software tools such as: Keras, TensorFlow, PyTorch, ONNX
- General Mathematics concepts such as: Linear Algebra, Set Theory, Graph Theory, Probability, Calculus, Discrete Mathematics
- Statistics
- SPSS
- LiDAR
- LiDAR point cloud
- MATLAB
- Photogrammetry
- Surveying Technology

PERSONAL SKILLS
- Quick learning
- Attention to details
- Result-oriented
- Collaborative

COMPETITIVE EXAMS in 2022:
✦ **GATE February 2022 (Subject: Geomatics)**
Marks: 37.33; Score: 301; AIR: 639
✦ **UGC NET January 2022 (Subject: Geography)**
Total Percentile Score: 94.87

Declaration:
I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Satarupa Mitra
Dated: 12/04/2022   **(SATARUPA MITRA)**