SHREYAS R CHANDRASHEKAR

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Education

YEAR	Degree	Institute/School	GPA/%
2023	**M.Sc., Geoinformatics**	**Birla Institute of Technology, BIT(Mesra)**	**8.79**
2021	B.Sc., Physics	Birla Institute of Technology, BIT(Mesra)	7.27
2018	Senior Secondary (State Board)	Sri Kumaran Children's Home, Bengaluru	80%
2016	Secondary (ICSE)	Sree Rama Vidyalaya, Bengaluru	86%

Academics

Master's Dissertation *(Oct' 2022 – May 2023)*

"Spatio-temporal variation of CO2 and Solar Induced Fluorescence and its relationship with LULC over Southern Karnataka, India."

Research study was conducted using various tools in **machine learning**, **deep learning**, **data analysis**, and **statistical** domain, all implemented in **Python**, **Julia**, and **R** Programming languages.

- Performed Satellite data gap filling using **Support Vector Machine Regressor** using time series satellite data of the study area (Utilized both Spatial and Temporal information).
- Performed Time series forecasting using **RNN-LSTM model, FbProphet model and ARIMA model.**
- Preprocessing, cleaning, and automation of data analysis of data fetched from server using python scripts, auto conversion from **netcdf** to **Geotiff**.
- Application of statistical tests for significance testing (**Welch's T test**)

Bachelor's dissertation *(Jan' 2021 – May 2021)*

"Green House Monitoring and Control System (Using ATmega328P)."

In this project, I've created an artificial greenhouse monitoring system. Money plant was chosen as the subject of experiment. Various sensors were used to monitor the climatic conditions within the greenhouse, such as **soil moisture level, air quality, intensity of light, temperature, and humidity.** All the sensors were implemented on SoC (NodeMCU). Wi-Fi capabilities of NodeMCU was used to upload data to IoT **analytics** website (**Thingspeak**). Data was used for deriving **summary statistics** which evaluated the condition for best growth under which set of climatic conditions.

Experience

Technical Advisor & Mentor *(Aug' 2023 – Present)*

Dygnify

I had the opportunity to play a vital role as an advisor to a technical team at the Dygnify company. I provide support on several fronts, especially in the climate domain. I was part of a project to develop disaster-based credit system for better climate action. Mentored colleagues and introduced them to the concepts of Remote Sensing.

GIS Developer – Product Lead *(May 20233 – Aug' 2023)*

Engeo Analytics (SENU):

Worked closely with the founder and set up a start-up in GIS domain. Worked on **WebGIS dashboard**, using JavaScript leaflet and Openlayers libraries (Created **data pipeline** to fetch **Sentinel 2** images and another to apply **deep learning** on images for **automatic-segmentation** and display in a HTML page).

GIS Developer/Analyst (Intern) *(Jan' 2023 – May 2023)*

Center For Study of Science, Technology and Policy, Bengaluru:

Published an **application in Google Earth Engine** (GEE), the app quantifies and visualizes the Diurnal Temperature Range (DTR) in India, on District level, using **MODIS Terra** data. App can also download

Experience with **JavaScript** libraries (**Openlayers**, **Leaflet**, **Mapbox** and **Cesium 3D**), **AWS S3** and **Deep learning** for **classification** and **forecasting**. Statistical Data on DTR was downloaded month-wise automatically using JavaScript and **data analysis** and **visualization** was performed using **Python**, **R** and **Julia**.

GIS and IoT Developer/Analyst (Intern) *(May 2022 – July 2022)*
Indian Space Research Organization, Bengaluru:
Built a System on Chip (SoC), sensor board using various sensors integrated with Atmega328P and NodeMCU module. This SoC was installed at various locations in Bengaluru which collected data on **Temperature**, **Humidity**, **Soil Moisture** and **Air Quality**. This data was used in python for data analysis.

- Created a **website**, using **python** that dynamically collected data from sensors and displayed it in near real time.
- The website was used for visualizing the outputs of **data inferences**.

Business Analyst (Intern) *(Dec' 2019 – Jan' 2020)*
Xcelerator Ninja, Bengaluru:
Learnt hands on about Multicriteria decision making techniques and Analytical Hierarchy process used for **data (pre-)processing**, **data analysis using python** and decision making.

Technical Skills

Programming languages: **Python, C++, JavaScript, and Embedded C.**
Databases: **PostgreSQL (PostGIS), and Cloud Based databases.**
Experience working with **Geoserver.**
Tools: **QGIS, ArcGIS-Pro, Google Earth Engine (Python SDE), ArcMap, ENVI, SNAP, ERDAS IMAGINE, Arduino IDE, MATLAB, and Microsoft Office Tools**
Simulation Software's: **Proteus, Multisim**

Fellowships and Achievements

1) Only one of the two recipients of Prestigious "**Greenko Fellowship**" in India (AUG' 2023).
2) **GATE All India Rank 404** in Geomatics Engineering.
3) **Google User research** fellowship award.
4) District Level Runner-Up in High jump Junior category held in Kanteerava stadium Bengaluru.

Projects (Personal and academic projects)

- https://github.com/shreyas-rc/Basic_CSV_Mapper_using_Folium_Flask
- https://github.com/shreyas-rc/Web_dashboard_leaflet
- https://1616shreyas.users.earthengine.app/view/dtr

Co-curricular Activities

Social Network Manager **(***Feb' 2017 – June 2021)*
Manager and Co-admin of the page @Namma.sandalwood (on Instagram). Through this handle, I have promoted all the major movies released across Karnataka and a few of the major brands (like Burger King).

Hostel Secretary (Hostel-10 BIT, Mesra) *(June 2018 – June 2019)*
As a mess secretary I was tasked with handling the mess bill of every student for a period of one year (two semesters). The total amount handled was roughly a figure of **1.87 crores** in **rupees**.

Volunteer (Rural Kids "Educate Program") *(May 2022 – June 2023)*
Take pride in educating few school going kids in mathematics and science subjects. Two of my students excelled in math with the top rank in the district.

References: **1).** Dr. Nilanchal Patel - **npatel@bitmesra.ac.in** **(+91-9431100357)**
2). Dr. A Pramod Krishna - **apkrishna@bitmesra.ac.in** **(+91-9931577628)**
3). Dr. Virendra S Rathore - **vsrathore@bitmesra.ac.in**