Sourav Mandal *Business Analyst*

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Unmarried

https://github.com/Sourav9827

PROFILE

Recent postgraduate in mathematics with a strong foundation in data analytics, deep learning, and natural language processing. Skilled in statistical analysis, machine learning, and data visualization using tools such as SQL, PowerBI, and Python. Seeking an entry-level business analyst position to apply my analytical skills to solve real-world business problems and drive data-driven decision making.

SKILLS

Python ●●●●●
Pandas, Numpy, Matplotlib, Seaborn, Flask, Plotly, Dash, Sklearn etc.

Tableau ●●●●●
Data Visualization, Analytics, Dashboards etc.

MS-Office ●●●●●
Excel, Power point, Word, Access.

HTML/CSS ●●●●○
Flask and django api frameworks

Power BI ●●●●●
DAX, Data Visualization, Dashboarding etc.

Databases ●●●●●
SQL and Mongo DB.

Team Leader ●●●●●
I lead a group of interns under me, monitor their work and as a team we solve various task in my present company.

R Software ●●●○○
ggplot2, dplyr, plotly kniter, data.table, mlr3 etc.

PROFESSIONAL EXPERIENCE

2017 – present — **Teacher(Mathematics),** *Self Employed* — Chakdaha, India
I am a private tutor in mathematics and teach mathematics and Computer Science to students of class XI and above, and science and mathematics to students from class VIII to X.

02/2022 – 11/2022 — **Mentor of NH Mapping,** *Highway Delite* — Work from home, India
Monitor the work of interns under me, give training and work on the backend maintenance of the website.

08/2021 – 09/2021 — **Data Analyst Intern,** *The Sparks Foundation* — Work from home, India
Prediction using Supervised ML, Prediction using Unsupervised ML, Exploratory Data Analysis - Retail, Exploratory Data Analysis - Terrorism, Prediction using Decision Tree Algorithm

PROJECTS

07/2022 – present — **Stores Sales Prediction,** *Creating a machine learning model that can accurately predict sales for Big Mart Stores*
- Developed a machine learning model to predict sales for Big Mart Stores using data on various features such as location, product type, and promotional activities.
- Utilized Python libraries such as Pandas and scikit-learn to clean and analyze the data, and trained and evaluated the model using a combination of supervised and unsupervised learning techniques.
- Implementing a continuous integration and deployment (CI/CD) pipeline to automate the model training and deployment process.

12/2022 – 01/2023 — **News Category Classification,**
Conducted a natural language processing (NLP) analysis of BBC news articles to classify them into different categories
- Used NLP techniques to classify News Category as Entertainment, Political, Tech or Sports
- Utilized Python libraries such as Pandas, scikit-learn, and NLTK to clean and analyze the data
- Trained and evaluated a Deep learning model (BERT) on a dataset of over 1400 News Article
- Achieved an accuracy of 97.96% on the test set

10/2022 – 11/2022 — **Tweets Sentiment Analysis,** *Data analysis and machine learning using Python and NLTK*
- Used NLP techniques to classify tweets as positive or negative
- Trained a machine learning model on a dataset of over 10,000 tweets

- Achieved an accuracy of 95% on the test set

09/2022 – 12/2022 **Mushroom Classification,** *Develop an accurate and reliable model for classifying mushrooms.*
- Developed a machine learning model for classifying mushrooms as edible or poisonous using Python and scikit-learn.
- Conducted exploratory data analysis on a dataset of mushroom observations to identify patterns and relationships between the different features.
- Evaluated multiple classification algorithms including Logistic Regression, Random Forest, and KNN to identify the best performing model.
- Achieved an accuracy of 88% in correctly classifying the mushrooms as edible or poisonous.

07/2022 – 08/2022 **Insurance Fraud Detection,** *Develop and implement a fraud detection system for an insurance company.*
- Developed a machine learning model for fraud detection in insurance claims using Python and scikit-learn.
- Conducted exploratory data analysis on a large dataset of insurance claims to identify patterns and trends in fraudulent activity.
- Engineered features to represent claim characteristics, policyholder behavior, and external factors that could impact fraud risk.
- Achieved an accuracy of 77.2% in detecting fraudulent claims, resulting in significant cost savings for the insurance company.

06/2022 – 07/2022 **California Housing Price Estimation,**
Developed a machine learning model to predict housing prices in California using data from the California Census
- Utilized Python libraries such as NumPy, Pandas, and scikit-learn to preprocess and analyze the data
- Trained and evaluated the model using cross-validation and various metrics such as mean squared error and R squared.
- Created a machine learning model that achieved an R squared value of 0.87 on the test set, demonstrating strong predictive power
- Successfully implemented ML Ops practices, allowing the model to be trained and deployed automatically, reducing the time and effort required to maintain the model.

06/2022 – 06/2022 **Algerian Forest fire prediction,**
Created a machine learning model that can accurately predict the likelihood of future forest fires in Algeria
- Conducted a data analysis of past forest fire occurrences in Algeria, including meteorological and vegetation data
- Developed a machine learning model to predict the likelihood of future forest fires using the data
- Utilized the Pandas library to preprocess the data and the scikit-learn library to train and evaluate the model
- Achieved an accuracy of 98.76% on the test dataset

06/2022 – 06/2022 **Adventure Works Reports,** *Analyzed sales data for Adventure Works Cycles using Power BI*
- Created a comprehensive dashboard that allowed the sales team to track their performance and identify opportunities for improvement
- Created a dashboard to track key performance indicators such as sales, revenue, profit, and returns
- Utilized Power BI features such as filters, slicers, and visualizations to present the data in an interactive and easy-to-understand format

03/2022 – 04/2022 **Puppy adoption site,**
Designed and developed a web application using the Flask framework in Python to allow users to browse and adopt puppies
- Created a full-featured web application that allows users to browse and adopt puppies, including a form for submitting adoption applications
- Implemented a form for users to submit applications to adopt a puppy, including validation and error handling
- Stored the application data in a MySQL database and used Flask-SQLAlchemy to query and manipulate the data
- Utilized Jinja templates to create dynamic web pages and integrated Bootstrap for a responsive design
- Successfully deployed the app on Heroku, making it accessible to users around the world.

03/2022 – 04/2022 **Review and Image Scrappers,** *Flipkart Review Scrapper and google image scrapping*
- Developed a Python script to scrape product reviews from Flipkart and images from website (https://github.com/Sourav9827/Image-Scrapper.git)
- Developed a Python script to scrape images from google search. (https://github.com/Sourav9827/ReviewScrapperFlipkart.git)
- Utilized the Beautiful Soup library to parse HTML and extract relevant data
- Stored the data in a sqlite database and used the Pillow library to process and resize the images

EDUCATION

09/2021 – present **Bachelor in Education (B.Ed),** *W.B.U.T.T.E.P.A* Santipur, India

02/2021 – 02/2022 **Diploma in Information Technology,** *Nehru Yuva Computer Shiksha Kendra* Chakdaha, India

08/2019 – 08/2021 **M.Sc Mathematics(Pure),** *University Of Kalyani* Kalyani, India

07/2016 – 07/2019 **B.Sc (Hons.) Mathematics,** *University Of Kalyani* Kalyani, India

03/2022 – present **Full Stack Data Science program,** *ineuron.ai*
Data Science and Analytics, Machine Learning, Deep Learning etc.

CERTIFICATES

Data Analytics Consulting Virtual Internship (KPMG) (Data Quality Assessment Data Insights Data Insights and Presentation May 8th, 2021)

Data@ANZ Program (Exploratory Data Analysis Predictive Analytics May 13th, 2021)

LANGUAGES

English **Hindi** **Bengali**

COURSES

09/2020 – 11/2022 **Introduction to R Software,** *NPTEL*

07/2021 – 10/2021 **Learning Analytics Tools,** *NPTEL*

07/2021 – 10/2021 **Probability for Computer Science,** *NPTEL*

07/2021 – 09/2021 **Introduction to Machine Learning,** *NPTEL*

04/2021 – 05/2021 **Introduction to Machine Learning,** *Duke University (Coursera)*

01/2021 – 04/2021 **Data Analytics with Python,** *NPTEL*

01/2021 – 03/2021 **Data Science for Engineers,** *NPTEL*

09/2020 – 11/2020 **Programming, Data Structures And Algorithms Using Python,** *NPTEL*

09/2020 – 11/2020 **Introduction to R Software,** *NPTEL*

09/2020 – 10/2020 **Python for Data Science,** *NPTEL*

DECLARATION

I hereby declare that all the information furnished above is correct to the best of my belief. I am responsible for the authenticity of all the information.

Sourav Mandal
Chakdaha, 16/02/2022