Sourav Mandal *Teacher*

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+91 8618241725 27/11/1998 Indian sourav-mandal-390064210 Sourav9827 Portfolio

Profile

Experienced mathematics and data science professional with expertise in Python, SQL, machine learning, and data analysis. Strong background in teaching and training, with a proven track record in developing and deploying models for classification and prediction. Detail-oriented and committed to delivering high-quality results.

Skills

Teaching (*Mathematics and Computer Science*)

Computer Science (*Python, SQL, Machine Learning and Data Science*)

Python (*Pandas, Numpy, Matplotlib, Seaborn, Flask, Plotly, Dash, Sklearn etc.*)

Data Analytics (*MySql, Tableau, PowerBI, Snowflake, Pentaho etc.*)

Databases (*SQL and Mongo DB.*)

MS-Office (*Advanced Excel, Power point, Word, Access.*)

Team Leader (*I lead a group of interns under me, monitor their work and as a team we solve various task in Highway Delite.*)

Machine Learning (*Linear and Logistic Regression, SVM, Xgboost, Random Forest, Naive Bayes etc.*)

Deep learning (*ANN, CNN and RNN*)

NLP (*NLTK, Machine Learning, RNN, LSTM, GRU, Self-Attention model, Transforms, Chatbot 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*)

Full Stack Data Science (*ineuron.ai*)

Python for Data Science and Machine Learning Bootcamp
(*udemy*)

Introduction to Machine Learning (*Coursera*)

Data Science foundations (*Great Learning*)

Education

Bachelor in Education (B.Ed), *W.B.U.T.T.E.P.A*

09/2021 – present | Santipur, India

On-site School Teaching Internship, Seminars, Micro-teaching, Presentations, Models, Learning Designs etc.

M.Sc Mathematics(Pure), *University Of Kalyani*

08/2019 – 08/2021 | Kalyani, India

- Specialization in Complex Analysis and Differential Geometry.
- Advanced Research Project on Wave Equations.

B.Sc (Hons.) Mathematics, *University Of Kalyani*

07/2016 – 07/2019 | Kalyani, India

Professional Experience

Subject Matter Expert, *Vertocity*

03/2023 – present | Remote, India

Training students on Data Science and Analytics
SQL, Advanced Excel, Python, Statistics, Machine Learning, Power BI, Time series analysis, Deep Learning and NLP.

Data Analytics intern, *ineuron.ai*

05/2023 – 07/2023 | Remote, India

- **Project Title:** NBA Data Analytics Project
- **Tools:** Python, SQL and Power BI
- **Final Output:** A presentation of the findings, including visualizations and recommendations.
- **Roles and Responsibilities:**
  - Collected(Webscrapping) and cleaned NBA player data.
  - Developed and executed data analysis queries.
  - Created visualizations of the data.
  - Presented the findings and documentations to stakeholders.

Data Science Intern, *ineuron.ai*

12/2022 – 02/2023 | Remote, India

- **Project Title**: News Article sorting
- **Objective:** To classify news articles into predefined categories like Sports, Technology, Entertainment, etc. using deep learning methods.
- **Tools:** Python, Google's BERT model, Azure App Services, Flask, HTML/CSS , Pandas, NumPy, Scikit-learn, TensorFlow, and Keras.
- **Final Output:** Achieved 97.96% accuracy on test set, deployed model on Azure App Services using Flask web app for predictions
- **Roles & responsibilities:**
  - Pre-processing the data to make it suitable for the model
  - Fine-tuning the BERT model for News Category Classification
  - Developing the Flask application for the model
  - Deploying the model on Azure app services
  - Testing and debugging the application
  - Documentation of the project

Teacher(Mathematics and CS), *Self Employed*

2017 – present | Chakdaha, India

- Freelancing Teacher of Mathematics and Computer Science
- Creating Presentations and Learning designs for everyday classes.
- Good understanding of Concepts and Application in real life situations.
- Noticeable improvements in Student's Academic results.

Associate, *Highway Delite*

02/2022 – 11/2022 | Remote, India

- Building database for highway related data.
- Train and monitor the work of new interns.
- Research and create documents for tourism data
- Verify and upload the highway information in the backend of the website

Data Analyst Intern, *The Sparks Foundation*

08/2021 – 09/2021 | Remote, India

- Prediction using Supervised ML
- Prediction using Unsupervised ML
- Exploratory Data Analysis - Retail
- Exploratory Data Analysis - Terrorism
- Prediction using Decision Tree Algorithm

Full Stack Data Science program, *ineuron.ai*

03/2022 – 03/2023

Data Science and Analytics, Machine Learning, Deep Learning and Big data basics.

Diploma in Information Technology,
Nehru Yuva Computer Shiksha Kendra

02/2021 – 02/2022 | Chakdaha, India

Typing, MS Office, Advanced Excel, HTML, CSS and Basic C Programming.

Courses

Associate Financial Analysis, *invact.com*
06/2023 – present

Prompt Engineering, *deeplearning.ai*
04/2023 – 04/2023

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

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

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

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

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

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

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

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

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

Languages

English • Hindi • Bengali

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, 29/07/2023

Projects

Tweets Sentiment Analysis,
Data analysis and machine learning using Python and NLTK

10/2022 – 11/2022

- **Objective:** Analyze the sentiment of tweets and classify them as positive, negative, or neutral using machine learning
- **Tools:** Python, Scikit-Learn, SciPy, NLTK, Pandas, Heroku, Falsk, HTML/CSS.
- **Final Output:** Achieved 85% accuracy on test set, deployed model on Heroku as a web app for predictions
- **Roles & responsibilities:** Sole contributor, responsible for all aspects of the project including data collection, preprocessing, model training, and deployment. Managed the entire project from start to finish.

Case Study SQL - Danny's Diner,
Analyse Danny's Restaurant's Database

- **Objective:** Analyzing Danny's Diner's data using SQL to help improve customer experience and make informed business decisions.
- **Tools:** SQL, Google Sheets (datasets provided)
- **Methodology:** Write SQL queries to answer specific questions about customer spending, visiting patterns, menu preferences, loyalty program, and points calculation. Create basic data tables for easy data inspection without SQL joins.
- **Results:** Insights generated on customer spending, visiting patterns, and menu preferences. Evaluation of loyalty program effectiveness. Calculation of points earned by customers.
- **Impact:** Enable Danny to understand customer behavior, enhance personalized experiences, expand the loyalty program, and optimize menu offerings based on customer preferences.

Review and Image Scrappers,
Flipkart Review Scrapper and google image scrapping

03/2022 – 04/2022

- 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

Adidas Sales Dashboard, *Created a sales dashboard using Excel, Power Query, and DAX to analyze sales trends, improve forecasting, and marketing strategies for Adidas.*

- **Objective:** Create a sales dashboard for Adidas to visualize and analyze sales data.
- **Tools:** Excel, Power Query, DAX.
- **Methodology:** Extracted and transformed data from multiple sources, created calculated columns and measures, and designed interactive visuals.
- **Results:** Provided insights into sales trends, product performance, and customer behavior, leading to data-driven decisions.
- **Impact:** Improved sales forecasting, inventory management, and marketing strategies for Adidas.

Customer Details Dashboard, *Excel-based customer dashboard provided insights and improved business performance.*

- **Objective:** Create a dashboard to analyze customer data and provide insights for business decisions.
- **Tools:** Excel, Power Query, DAX.
- **Methodology:** Extracted and transformed customer data from multiple sources, created calculated columns and measures, and designed interactive visuals.
- **Results:** Provided insights into customer demographics, behaviors, and preferences, leading to data-driven decisions.
- **Impact:** Improved customer retention, acquisition, and satisfaction for the business.