Sourav Mandal *SQL Developer*

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📞 +91 7908790565   📅 27/11/1998   🏳 Indian   in sourav-mandal-390064210   ⬡ Sourav9827   ⚑ Portfolio

🪪 Profile

A skilled SQL developer with expertise in Python, data analytics, databases (SQL and Mongo DB), and cloud services (AWS, Azure, Heroku). With a background in data science and analytics, I've experience in training students on various data science tools and working on real-world projects. I've successfully developed and deployed machine learning models for tasks such as news article sorting, tweets sentiment analysis, mushroom classification, and insurance fraud detection. I'm detail-oriented, a team leader, and has a strong understanding of mathematics and computer science.

🧠 Skills

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

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

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

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

Databases (*SQL and Mongo DB.*)

Big Data (*PySpark, Hadoop, Kafka and Spark*)

Deep learning (*ANN, CNN and RNN*)

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

MLOps (*Github Action, CI/CD pipelines, Deployment Techniques In AWS,AZURE, Dockers And Kubernetes, MLflow, DVC.*)

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

Cloud Services (*AWS, Azure, Heroku, Render etc.*)

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

Teaching (*Data Science, Mathematics and Computer Science*)

🏅 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

Full Stack Data Science program, *ineuron.ai* 🔗
03/2022 – 03/2023

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

💼 Professional Experience

Data Science SME, *Vertocity*
03/2023 – present | Remote, India

Creating Dasboards, Generating Insights and Automation.
Providing Training 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

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.

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

09/2021 – 09/2023 | 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

🏛 Courses

Associate Financial Analysis, *invact.com*

06/2023 – 12/2023

TensorFlow Developer Certificate: Zero to Mastery, *Udemy*

08/2023 – 12/2023

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, 31/12/2023

📁 Projects

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.

Earthquake Analysis, *Created Earthquake Analysis Dashboard, predicted risk & intensity, improved disaster response.* 🔗

- **Objective**: Analyze earthquake data and create a predictive model for earthquake risk and intensity.
- **Tools**: SparkR, Power BI.
- **Methodology**: Created an ETL pipeline using SparkR to ingest and clean data. Built a machine learning model to predict earthquake risk and intensity. Visualized the results using Power BI.
- **Results**: Provided insights into the earthquake patterns, hotspots, and trends. Predicted the countries at risk for earthquakes and their intensity levels.
- **Impact**: Improved disaster preparedness, risk mitigation, and emergency response strategies for the affected regions.

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

HR Attrition Dashboard, *Excel-based HR dashboard improved employee retention and engagement.* 🔗

- **Objective**: Create a dashboard to analyze employee attrition and provide insights for HR decisions.
- **Tools**: Excel, Power Query, DAX.
- **Methodology**: Extracted and transformed employee data from multiple sources, created calculated columns and measures, and designed interactive visuals.
- **Results**: Provided insights into attrition rates, reasons, and patterns, leading to data-driven decisions.
- **Impact**: Improved employee retention, engagement, and satisfaction for the company.

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.