

SHAMBO CHOWDHURY

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EDUCATION

Indian Institute of Technology (IIT), Kharagpur

2023 - 2027

B.Tech - Chemical Engineering

Kharagpur, West Bengal

TECHNICAL SKILLS

Languages : Python, C, SQL, Bash

Data Science : Scikit-learn, Matplotlib, Seaborn, Pandas Numpy

DBMS : PostgreSQL, MongoDB, MySQL

Operations : ZenML, MLflow, Github Actions, CircleCI, Dagshub

Backend Frameworks : Flask, SwaggerHub, Streamlit

Cloud : AWS(EC2), GCP(GKE), Azure(ASE), Heroku

PROJECTS

Predictive Maintenance Model [🔗](#) | [Demo](#) [🔗](#) | [Model Tracking](#) [🔗](#) | [Mlflow](#), [Streamlit](#), [Dagshub](#)

2024

- Reduced maintenance costs of by 40-60% by developing a predictive maintenance model using Random Forest Regressor to predict sensor failures for a company, and eliminate unnecessary maintenance operations.
- Trained the model on historical sensor data with 11 features, including IDs, metrics, and failure rates.
- Utilized MLflow for model tracking, and DagsHub for hosting and versioning project.

Customer Satisfaction Predictor [🔗](#) | [Mlflow](#), [ZenML](#), [Streamlit](#)

2024

- Analyzed a dataset of 100k orders from Brazilian marketplaces (2016-2018) to develop an automated ML pipeline for predicting customer satisfaction on scale (0-5).
- Automated training, evaluation, and selection of the best sci-kit-learn, allowing easy implementation of ML models on large e-commerce-based datasets.
- Utilized ZenML and MLflow to track models, pipelines, artifacts and Streamlit for user-friendly model interaction.

Advertising Sales Prediction [🔗](#) | [scikit-learn](#), [pandas](#), [matplotlib](#)

2024

- Implemented regression models to predict the sales of a product based on advertising budgets for TV, radio, and newspapers.
- Analyzed the impact of advertising budgets on sales using data visualization to optimize ad spending and boost sales.
- Tuned the model to achieve an R2 score of 90% on the test dataset.

Valo-shop [🔗](#) | [PostgreSQL](#), [REST-API](#), [Hosting services](#)

2022-Present

- Developed a Discord bot that allows users to view their Valorant in-game inventory and store offers from their Discord.
- BOT is used by over 2.8k+ servers and has grown exponentially in just 1 year.
- Implemented API calls, Database management, Hosting etc.
- Resolved errors based on Rate Limiting, API Cookie Handling, User Security, Pipeline Issues etc.

Vstat [🔗](#) | [PostgreSQL](#), [MongoDB](#), [Amazon-AWS-EC2](#), [REST-API](#)

2022-Present

- Developed a Discord bot for Valorant that displays user stats, matches, leaderboards, skins, agents, maps, and weapons.
- Bot is verified by [top.gg](#) [🔗](#) with 1.7k+ upvotes and is used in over 1.3k+ servers.

ENGAGEMENTS

Google Cloud Skill Boost Challenge [🔗](#)

2023

- Solved 40+ challenges based on GenAI, LLM, Pub/Sub etc.
- Achieved 10 points in less than 1 month starting from scratch.

Hacktoberfest [🔗](#)

2021, 2022, 2023

- Contributed to and maintained several open-source repositories like freecodedatabase, Valo-shop, Vstat.
- Managed PRs, Issues, and a Discord community of 800+ members.