SHAMBO CHOWDHURY

Burdwan, West Bengal

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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

Ai Style-guide Assistant ⬀ | Google GenAI, Flask, Streamlit, VS-code Test   **2024-Present**

- Developed an AI-powered style-guide assistant using Google Gemini GenAI, helping developers write clean, consistent style code, reducing instances of clutter and bad code by up to 80%
- Integrated the assistant into VS Code and a web interface, automating code formatting and providing real-time style suggestions for both small scripts and large codebases with a single click
- Assistant can be customized as per the user's or team's need allowing flexibility in coding style and maintenance.

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 ⬀ | Mlfow, 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, Amazon-AWS-EC2   **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 4k+ 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.

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.