Other Projects

Embedded Systems and IoT Project :

Long Range Communication :

C/C++ programming for microcontrollers | Sensor interfacing and data acquisition | Circuit design and implementation

● Developed and implemented LoRa-based IoT project, achieving 1.1 km communication range with 54.85% packet loss.Designed interface circuit for sensor data transfer, demonstrating proficiency in wireless communication and circuit design.

Github Link : https://github.com/AbhishekYadav-01/Long-Range-Communication

Machine Learning Projects :

MOVIE GENRE CLASSIFICATION :

Machine Learning | SVM | Logistic Regression | Naive Bayes | Random Forest

In this project, we implemented and evaluated various machine learning models to classify movie genres based on plot summaries. The Support Vector Machine with a linear kernel achieved the highest accuracy (0.541), outperforming other models.The Support Vector Machine with a linear kernel showcasing their effectiveness in multi-class classification tasks,Logistic Regression and SVM with a sigmoid kernel also performed relatively well.

Github Link :
https://github.com/AbhishekYadav-01/Encryptix/tree/main/MOVIE%20GENRE%20%20CLASSIFICATION

CUSTOMER CHURN PREDICTION :

Machine Learning | Gradient Boosting | Random Forest | Logistic Regression

●In this project we have developed and evaluated models for predicting customer churn, with Gradient Boosting emerging as the most accurate model, offering valuable insights for customer retention strategies. Gradient Boosting achieved the highest accuracy of 87.12%, indicating its effectiveness in predicting customer churn. Random Forest also performed well with an accuracy of 86.44%, achieving a good balance between precision and recall for both classes and improving the detection of churners (recall of 0.44). Logistic Regression provided baseline performance with an accuracy of 81.24%.

Github Link :
https://github.com/AbhishekYadav-01/Encryptix/tree/main/CUSTOMER%20CHURN%20PREDICTION