SaiKet Systems

Internship Program

Data Science

About Us

- Saiket Systems is a prominent technology company renowned for its expertise in the dynamic fields of cloud computing, blockchain, artificial intelligence (AI), and machine learning (ML).
- The company excels in delivering impactful projects and solutions tailored to the evolving needs of businesses.
- Saiket Systems offers a diverse array of products and services, including robust cloud computing solutions, innovative blockchain technologies, advanced AI systems, and sophisticated ML algorithms.

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MSME
Micro, Small, & Mediam Enterprises
सूक्ष्म, लघु, एवं मध्यम उद्योग
MSME BUSINESS FORUM

Instructions

- Update your LinkedIn profile with your achievements, like offer letters or internship certificates from SaiKet Systems. Mention and tag SaiKet Systems in your posts. Use hashtags like #SaiKetSystemsJourney #SaiKetExperience #FutureWithSaiKet to showcase your association.
- Avoid plagiarism and code duplication. These violations can lead to internship termination and future opportunities loss with us.
- Create a video showcasing your completed tasks. Post it on LinkedIn, tag SaiKet Systems, and use hashtags like #SaiKetInnovation #SaiKetAchievements #SaiKetProjects to engage with our community.

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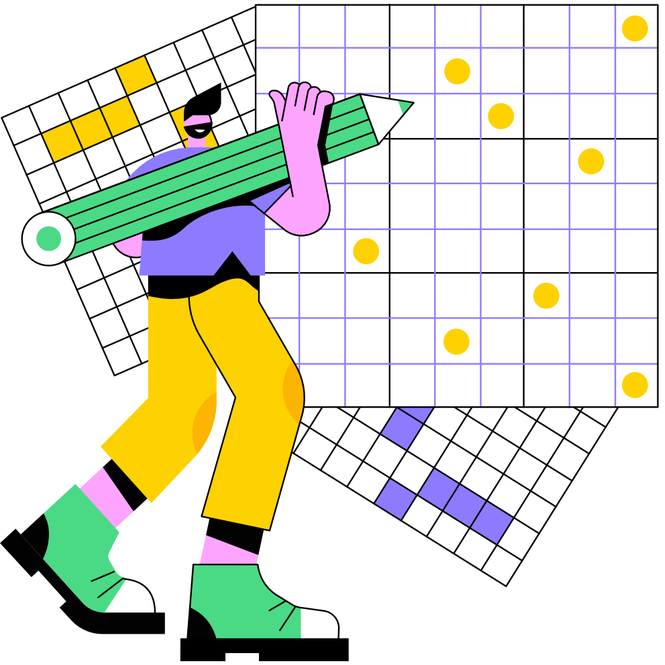
SUBMISSION

- Create a professional video showcasing your internship projects and achievements.
- Host the video on LinkedIn to provide proof of your work and establish credibility among your peers. Consider tagging Saiket Systems in your posts to ensure they are notified of your work.
- A SUBMISSION FORM will be shared later. Till then please continue your task and make a separate file of each level.
- When posting the video on LinkedIn, include the following hashtags to maximize visibility and engagement: #saiketsystems #saiket #saiketsys. Additionally, depending on your internship domain.



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Project Title: Customer Churn Analysis and Prediction

Project Overview:

The project aims to analyze customer churn in a telecommunications company and develop predictive models to identify at-risk customers. The ultimate goal is to provide actionable insights and recommendations to reduce churn and improve customer retention.

Note: You have to complete 4 tasks out of 6.

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Task 1: Data Preparation

Description:

In this task, you will be responsible for loading the dataset and conducting an initial exploration. Handle missing values, and if necessary, convert categorical variables into numerical representations. Furthermore, split the dataset into training and testing sets for subsequent model evaluation.

Skills:

- Data loading, data exploration,
- Handling missing values,
- Data preprocessing,
- Categorical variable encoding,
- Dataset splitting.

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Task 2: Exploratory Data Analysis (EDA)

Description:

Calculate and visually represent the overall churn rate. Explore customer distribution by gender, partner status, and dependent status. Analyze tenure distribution and its relation with churn. Investigate how churn varies across different contract types and payment methods.

Skills:

- Data visualization, statistical analysis
- Exploratory data analysis
- Understanding of customer demographic variables
- Churn rate calculation.

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Task 3: Customer Segmentation

Description:

Segment customers based on tenure, monthly charges, and contract type. Analyze churn rates within these segments. Identify high-value customers who are at risk of churning and might need special attention.

Skills :

- Segmentation techniques
- Understanding of customer behavior
- Churn analysis within segments
- Identifying high-value customers.

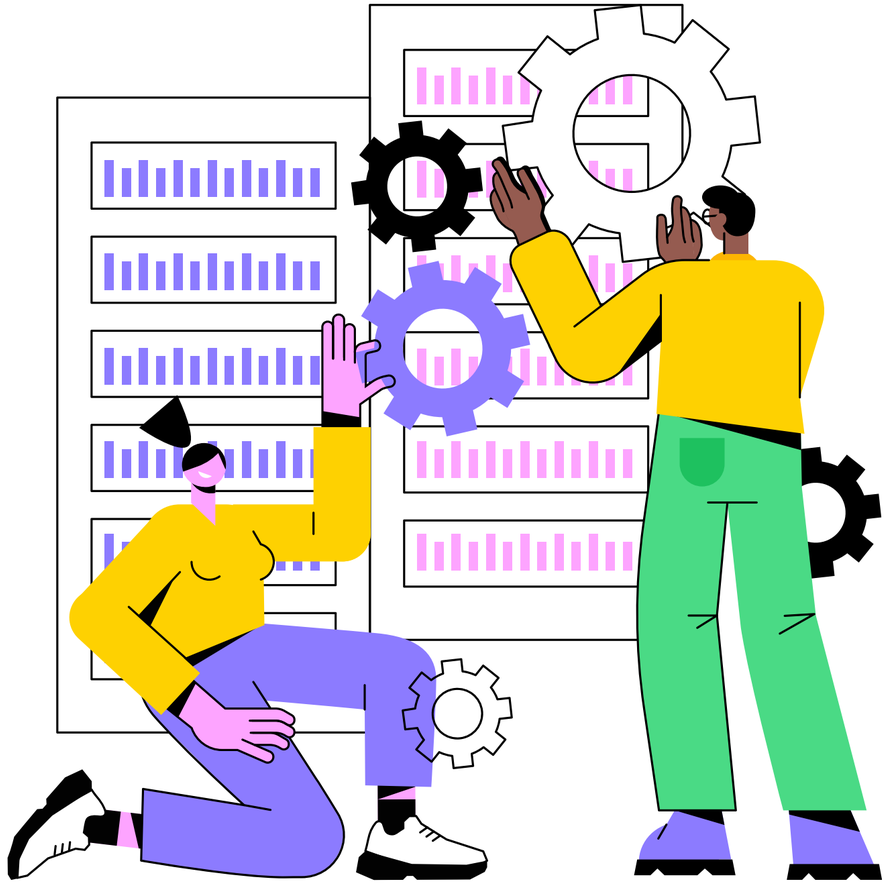
Task 4: Churn Prediction Model

Description:

Choose suitable machine learning algorithms (e.g., logistic regression, decision trees) for churn prediction. Split data into training and testing sets, train and evaluate multiple models using metrics like accuracy, precision, recall, and F1-score. Perform feature selection and hyperparameter tuning for optimal performance.

Skills :

- Machine learning algorithms
- Model training and evaluation,
- Feature selection, hyperparameter tuning
- Understanding of classification metrics.



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Task 5: Model Evaluation and Interpretation

Description:

Evaluate the best predictive model using the testing dataset. Interpret model coefficients or feature importances to comprehend factors influencing churn. Create ROC curves and calculate AUC for model performance assessment.

Skills :

- Model evaluation
- Interpreting coefficients/features importance
- ROC curve analysis
- AUC calculation
- Understanding of model performance metrics.

Task 6: Business Recommendations

Description: Based on the analysis and predictive models, provide actionable recommendations to the business. Suggest specific marketing strategies, retention offers, or customer engagement tactics. Estimate the potential impact of these recommendations on revenue and churn rate.

Skills: -

- Business acumen
- Data-driven decision-making
- Strategic thinking
- Impact estimation
- Communication skills.

How to Contact Us?

To find out more information, please contact us

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