20rtofolio



Information Systems



About Me

I am an Information Systems student with an interest in technology and innovation. Experienced in website development, UI/UX, mobile application, data analysis, and project management, I focus on creating digital solutions that are secure, efficient, and impactful.

Skills

- Python
- Javascript
- Java / Kotlin
- Wordpress
- PHP
- Laravel
- SQL

Contact

082383077087

https://giraldonainggolan.blogspot.com/

PERUM TGR BLOCK I 47/16

Giraldo Nainggolan

IINNOVATIVE IT PROGRAMMER

Education

senior high school
SMAKN SAMOSIR

2018 - 2021

Information Systems Students

Trunojoyo University

2022 - 2026

During my studies, I have been actively involved in various IT trainings and projects, including software redesign, website and Android application debugging, and user convenience implementation. I am active in the Information Systems Association organization, Google Developer Campus, ITC, and several other additional activities.

Experience

Project Management - Surabaya

Reka Village

April 2024 - June 2024

Explore my Real Estate Website project built with WordPress CMS. Featuring responsive design, SEO optimization, and advanced property search for seamless browsing.

Product Developmen - Surabaya

UPN East Java

June 2024 - Agustus 2024

Discover my FarmBot project: an innovative solution combining automation and precision farming to revolutionize sustainable agriculture and boost efficiency.

Software Staff

Bangkalan Legislative Council

Sep 2024 - Dec 2024

Tasked with designing a cross-platform application for the Bangkalan Regional People's Representative Council (DPRD) to facilitate efficient correspondence and communication.

Audit & Corporate Governance

PT Bukit Darmo.Tbk

Oct 2024 - Dec 2024

Data entry in the IT governance audit using COBIT 19 involves collecting, verifying, and recording information related to IT Processes, GAMO, and corporate compliance over a three-month period.

Production Planning and Inventory Control

PT Sebastian Jaya Metal

Jan 2025 - July 2025

In this role, I am responsible for production planning, inventory control, as well as ensuring a smooth production process in accordance with the demand and availability of raw materials.





Giraldo Nainggolan

Website Dev

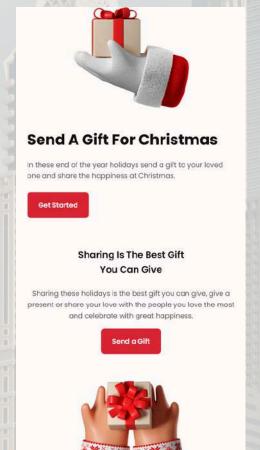
Christmas Shop Landing Page

Seasonal Sales on Christmas Day

Developed a fully responsive e-commerce website for Fashionista, a fashion retailer. The site includes an integrated shopping cart, user accounts, and a product recommendation engine.

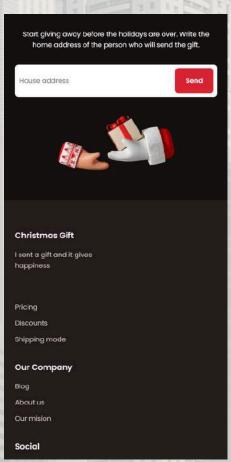
Technologies Used:

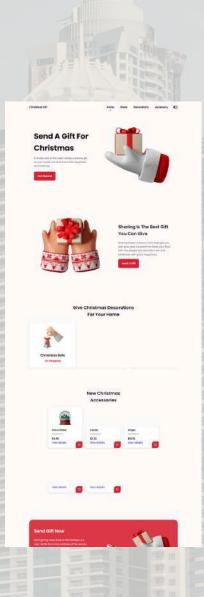
Front-end: HTML, CSS, Javascript



Outcome:

This website is designed for someone who celebrates Christmas with all the trappings of thr celebrate





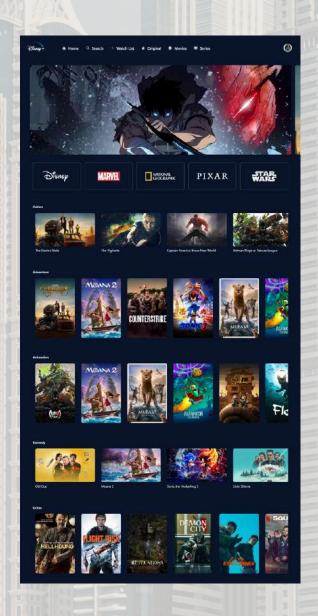
Laman-Landing-Page-Platform-Streaming

UI Modern dengan React & Tailwind

Developed a fully responsive streaming platform UI using React & Tailwind. Features dark mode, interactive navigation, dynamic movie display, and optimized performance. Ideal for media platforms, streaming services, or UI/UX portfolios.

Technologies Used:

Front-end: React.js, Tailwind CSS, JavaScript (ES6+), Vite



Outcome:

- ✓ A modern, responsive streaming platform UI
- ✓ Dark mode design for an immersive experience
- ✓ Interactive navigation with search & watchlist
- ✓ Dynamic movie display with grid & carousel layout
- ✓ Optimized performance using React & Tailwind
- ✓ Scalable & customizable for various media projects

UTM Faculty of Engenering Room Loan Website - Laravel 11 Framework

Final project from lecturer

I developed a room reservation website for the Faculty of Engeneering UTM using Laravel 11, featuring an admin panel, user authentation, and booking functionality

Technologies Used:

Front-end: Bootstrap, Blade, CSS, Javascript. Back-end: PHP, MySQL, Laravel, Hosting, GitHub, Herd

Outcome:

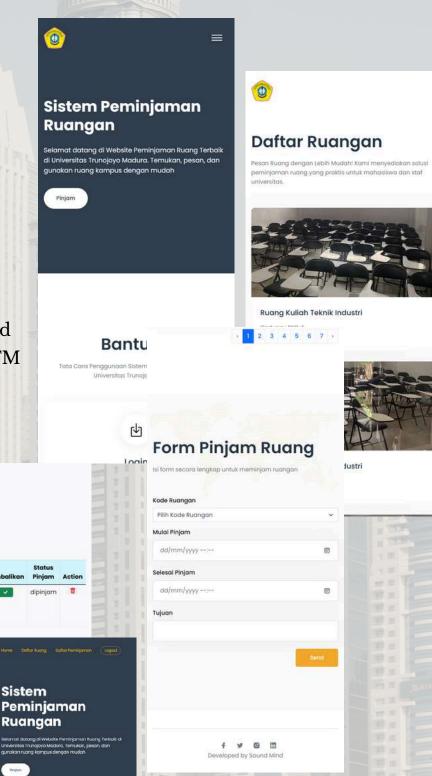
Peminjaman

Christian

Developed a Laravel based room booking site for UTM Engeneering with admin panel, login, and reservation.

2025-

13:30:00 15:00:00



Villa Agency Management System with PHP Native

Property Management

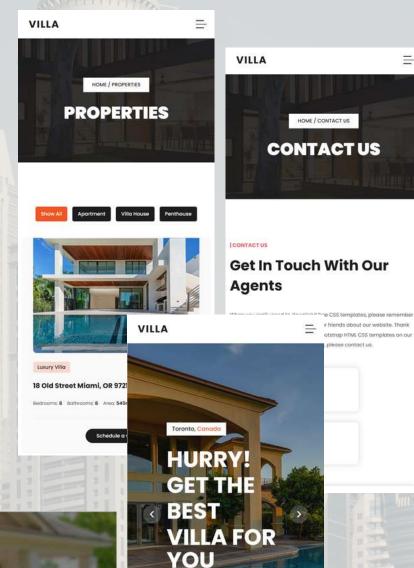
Developed a Villa Agency project using PHP Native, featuring property listings, booking management, and a user-friendly interface for efficient operations.

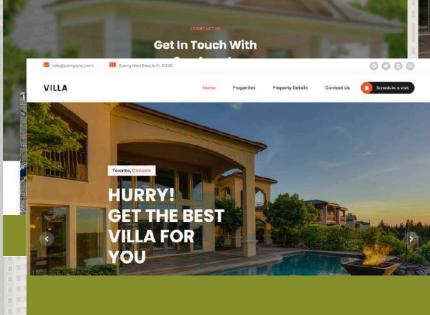
Technologies Used:

Front-end: HTML, CSS, Javascrip, Bootstrap
Back-end: PHP, MySQL
Hosting: GitHub, Localhost

Outcome:

Developed a Laravel based room booking site for UTM Engeneering with admin panel, login, and reservation.





Spiritual Tourism to Jerusalem -Landing Page Project

Spiritual Inspiration for Your Journey

Developed a basic WordPress tutorial project featuring a spiritual tourism website for Jerusalem, showcasing essential design and content management techniques

Technologies Used:

Front-end: Pluggin, Theme, Elementor. Back-end: PHP, MySQL Hosting: GitHub, Localhost



Outcome:

Created a WordPress-based spiritual tourism site for Jerusalem, teaching basic web design





Data Science, Analytics, and Computer Vision for Advanced Insights and Al Solutions

Disusun oleh Giraldo Naiggolan

Fruit Classification using CNN and Image Processin

Dataset properties:

The total number of images: 94110. Only images scaled to 100x100 pixels are counted here. Training set size: 70491 images (one object per image). Test set size: 23619 images (one object per image). The number of classes: 141 (fruits and vegetables). Image size in the largest dataset version: 100x100 pixels. Input (1.01 GB)

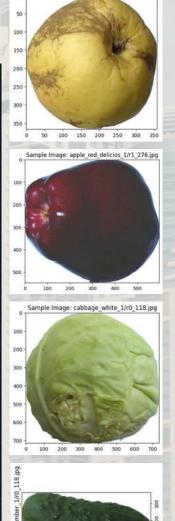
Technologies Used:

os, cv2 (OpenCV), matplotlib, seaborn, numpy, pandas, torch (PyTorch), torchvision, sklearn.model_selection (train_test_split), tensorflow.keras, tensorflow.keras.optimizers (Adam), tensorflow.keras.callbacks

(EarlyStopping), sklearn.metrics (classification_report, confusion_matrix), mpl_toolkits.mplot3d.Axes3D, sklearn.preprocessing.StandardScaler

12,312	(None, 24)	dense_1 (Dense)
18,940,416	(None, 512)	dense (Dense)
	(None, 36992)	flatten (Flatten)
	(None, 17, 17, 128)	max_pooling2d_2 (MaxPooling2D)
73,856	(None, 34, 34, 128)	conv2d_2 (Conv2D)
	(None, 36, 36, 64)	<pre>max_pooling2d_1 (MaxPooling2D)</pre>
18,496	(None, 72, 72, 64)	conv2d_1 (Conv2D)
	(None, 74, 74, 32)	max_pooling2d (MaxPooling2D)
	(None, 148, 148, 32)	conv2d (Conv2D)
Param #	Output Shape	Layer (type)

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Found 615 images belonging to Total mamples in train_gener	e 24 classes.	
	10 015	
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Validation steps (test): 30 Epoch 1/20		
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val_less 0.4402 Epoch 2/28		
val_tass: N. 3690	-2s 077cs/stmp - mccuracy: 1.6000 - loss: 0.0192 - vol_accuracy: 0.7	143 -
Epoch 3/26 /opt/conta/Lib/python3:16/co	intentlib py:153: UserWarning: Your input ran out of data; interrupti	DC.
training. Make sure that you	ir dataset or generator can generate at least 'steps_per_epoch' * epoc + the '.repeat()' function when building your dataset.	
	2750 26/step - accuracy: 0.9845 - less: 0.0563 - val_accuracy: 0.92	
Val_Loss: 0.37/1 Epoch 4/28		
150/150	23 185/510p - uccuracy: 1.0000 - loss: 0.0015 - val_accuracy: 0.055	
Epoch 5/28	2595 26/step scchrac; 1.8600 - less: 8.0011 - val_accuracy: 8.01	N.F.
Val_loss: 0.4200	2000 10/1000 - 0.Coracy: 1.0000 - Coss: 0.0011 - Val_accuracy: 0.00	
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val_less (0.1300) Epoch 7/26	- 271% 32/1100 + documacy: 1.8000 - Loss: 4.9764c-04 - val_accuracy:	
- val_loss: 0.4374 Epoch 8/26	2715 22/2180 - BUCUTACY: 2.0000 - (USS) +.3/940-04 - VBI_BCCUTACY:	W.9112
	-2s lm/step - uccuracy: 1.0000 - loss: 5.9189e-05 - val_accuracy: 1	.6888 -
Epoch 9/28		
- val_loss: 0.4624 Epoch 10/20	- 2715 15/stmp - accuracy: 1.0000 - loss: 2.2103m-04 - val_accuracy:	
- val_loss: 1.8956	-2: 770us/kmig = incurracy: 1:0000 - loss: 1:06330-01 - val_accuracy:	0.7343
Epoch 11/29	270s 25/step = accuracy: 1.0000 - loss: 1.5003e-04 - val_accuracy:	# 9112
- val_loss: 0.1777	2 2 40 13 100 5 07 010 1. 1.0400 - (035 1.30036.64 - Ma Caccalari)	0.9112
	-11: 50m/etig - incouracy: 1.6000 - loss: 2.2363e-01 - val_accuracy:	0.8571
- val loss: 0.1160 Epoch 13/20		
- val_loss: 0.1044	-271s 2s/ateo ± accuracy: 1.8000 - loss: 9.6746e-05 - val_accuracy:	0.90/9
Epoch 14/28	21 847us/stay - accuracy: 1.6000 - loss: 7.0199e-05 - val_occuracy:	1,0000
- val_loss: 0.0775 Epoch 15/20		
	275s 26/step + accuracy: 1.8600 - loss: 8.0174e-05 - val_accuracy:	0.9813
- val_loss: 8.5885 Epoch 16/29		
130/136	23 Im/step - occuracy: 1.0800 - loss: 7.0432e-05 - val_accuracy: 1	.6086 -
Epoch 17/28		
- val_toss: 0.5045	-2716 167 thm - accuracy: 1.8489 - Loss: 5.7618e-65 - val_accuracy:	8.0870
Epoch 18/29 130/130	-21 73345/5189 - accoracy: 1.0000 - loss: 1.8365e-05 - val accuracy:	0.7143
- val_loss: 0.6171 Epoch 19/20		
	278s-le/stepeccuracy: 1.9400 - loss: 4.7687e-65 - val_accuracy:	0.9838
Epoch 29/29		
- val_loss: 0,2700	-2: //llus/stmg - mccuracy: 1.0000 - loss: 5.2900e-05 - val_accuracy:	6.85/1



https://www.kaggle.com/code/giraldonainggolan/fruitclassification-using-cnn-and-image-processin

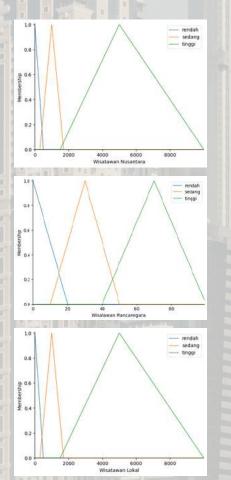
Online shopping-KNN-ROC

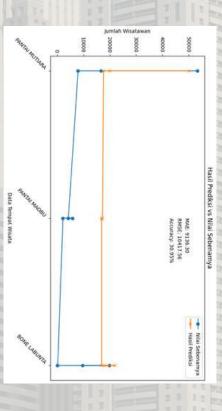
Dataset properties:

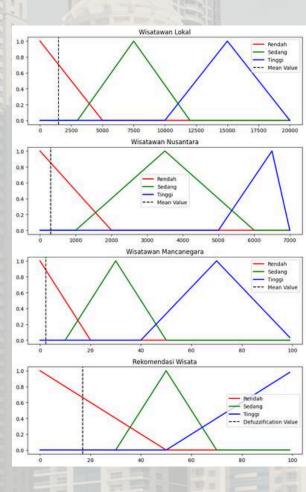
The dataset provided contains data about several tourist attractions along with the predicted number of tourists who will visit these places. For example, Mutiara Beach is predicted to attract 50,000 tourists, while Maobu Beach has a predicted number of visitors ranging from 16,695 to 17,079 tourists, and Bone Labunta is expected to invite between 16,708 to 21,843 tourists.

Technologies Used:

numpy as np, pandas as pd, scikit-fuzzy, matplotlib.pyplot as plt, skfuzzy as fuzz, sklearn.model_selection, train_test_split, skfuzzy, control as ctrlsklearn.metrics, mean_absolute_error, mean_squared_error, matplotlib.pyplot as plt







https://www.kaggle.com/code/giraldonainggolan/sistem-rekomendasi-tempat-wisata/

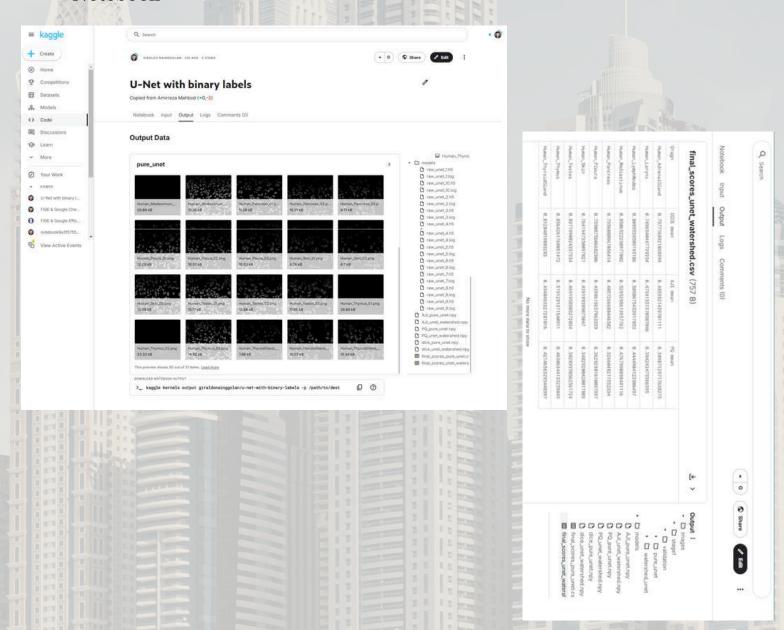
U-Net with binary labels

Dataset properties:

This notebook demonstrates the use of the U-Net architecture for image segmentation with binary labels. The goal is to classify each pixel in an image into two categories: the target object and the background.

Technologies Used:

Deep Learning Framework: TensorFlow/Keras, Model Architecture: U-Net, Programming Language: Python, Data Handling Libraries: NumPy, Pandas, Visualization Tools: Matplotlib, Experiment Platform: Kaggle Notebook



https://www.kaggle.com/code/giraldonainggolan/u-net-with-binary-labels

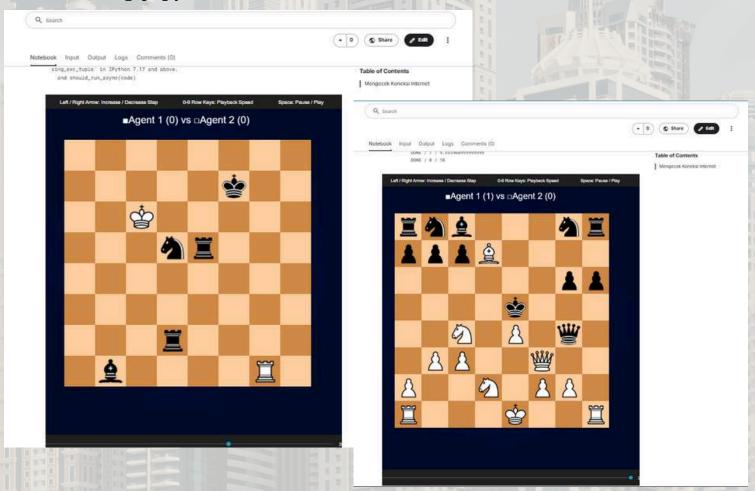
FIDE & Google Chess AI

Dataset properties:

The "FIDE & Google Chess AI: Thinking Smarter, Not Hard" project explores AI technology in chess by developing a more strategic and efficient system beyond brute-force calculations. By integrating optimized search algorithms like Monte Carlo Tree Search (MCTS) and Alpha-Beta Pruning with Google's AI technology, the project enhances move analysis and game strategy. Leveraging FIDE's chess database, the AI adapts to Grandmaster play patterns in real-time, making its decision-making process more intelligent and dynamic.

Technologies Used:

Python, TensorFlow & PyTorch, Stockfish & AlphaZero, Google Cloud AI, FIDE Chess Database, Monte Carlo Tree Search (MCTS), Alpha-Beta Pruning, Jupyter Notebook.



Machine Learning Regression

Dataset properties:

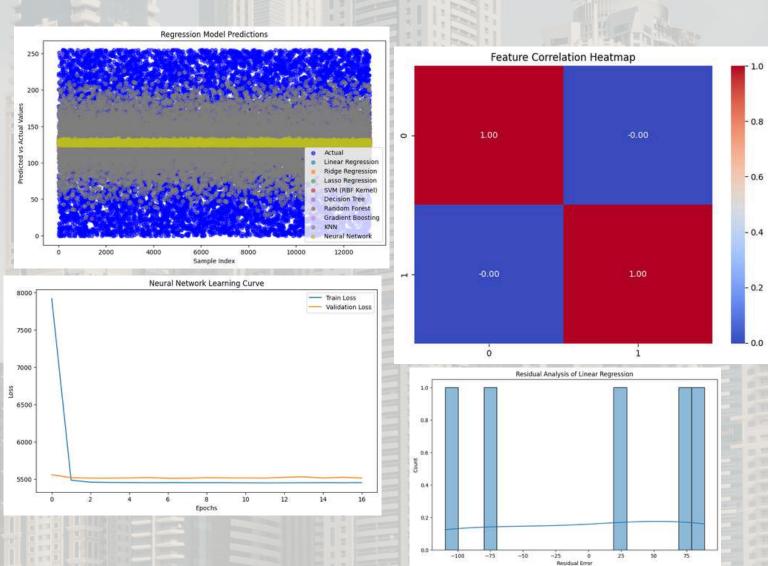
This dataset is designed to explore various regression methods in machine learning, including Linear Regression, Polynomial Regression, Ridge Regression, Lasso Regression, and Decision Tree Regression. It is suitable for training and experimenting with different regression models.

Variables in the dataset:

- $input1 \rightarrow The first numerical variable used for prediction.$
- $input2 \rightarrow The second numerical variable used for prediction.$
- output → The target variable to be predicted.

Technologies Used:

Python, Pandas , NumPy , Exel, Matplotlib & Seaborn, Scikit-Learn, Jupyter Notebook



https://www.kaggle.com/code/giraldonainggolan/machine-learning-regression

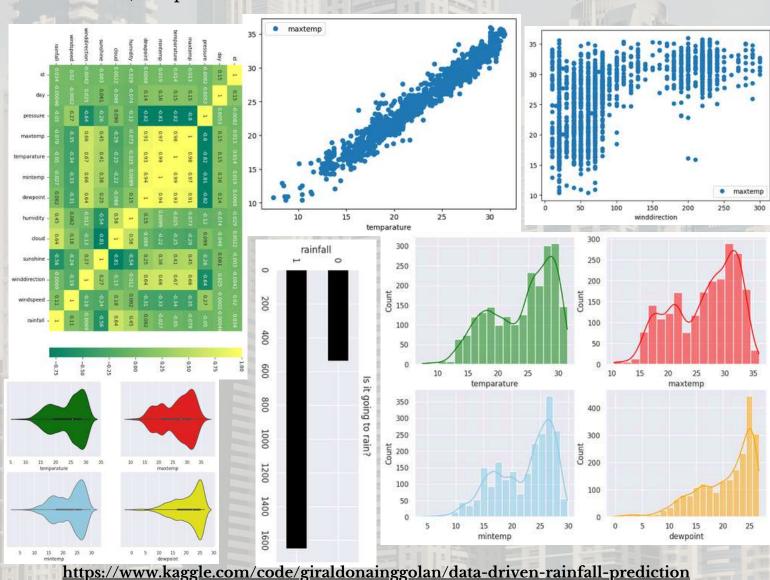
Data-Driven Rainfall Prediction

Dataset properties:

It includes Date & Time (YYYY-MM-DD HH:MM:SS) to track temporal patterns, Temperature (°C) representing the daily average temperature, and Humidity (%), which indicates moisture levels in the air. Additionally, Air Pressure (hPa) is included to analyze atmospheric conditions, along with Wind Speed (km/h) and Wind Direction (°) to assess air movement patterns. The dataset also records Rainfall (mm) as the primary target variable, measuring the amount of precipitation per day. Lastly, Weather Conditions provide categorical data on the general state of the weather (e.g., Clear, Cloudy, Rainy), further enhancing the prediction model's accuracy.

Technologies Used:

Data Preprocessing & Analysis, Machine Learning Model, Deployment & Tools, Output / Goals





FINANCIAL REPORT & AUDIT

2025-2026

Giraldo Nainggolan

Audit & Governance Report of PT Bukit Darmo

Dataset properties:

Data entry in the IT governance audit using COBIT 19 involves collecting, verifying, and recording information related to IT Processes, GAMO, and corporate compliance over a three-month period. This process includes inputting data from audit reports, IT policies, risk assessments, system logs, and governance documents into structured databases or spreadsheets. Each entry is carefully validated to ensure accuracy and consistency with COBIT 19 standards. Additionally, data cleaning is performed to remove errors and duplicates, ensuring a reliable dataset for audit analysis. The final dataset helps auditors evaluate compliance, measure IT efficiency, and recommend governance improvements based on structured, datadriven insights.

Technologies Used:

Microsoft Excel / Google Sheets, MySQL, COBIT 19 Framework, Microsoft SharePoint / Google Drive, Notion, Trello, Python (Pandas, NumPy)

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2		bisnis yang nyata dan ukuran persepsi yang mengindikasikan bagaimana perasaan orang terhadap perubahan, telah didefinisikan dan dilacak dengan tepat? Apakah tindakan perbalkan diambil jika diperlukan?					4		Perlu perbaikan namun ada dokumenasi	
5.0		Apakali pemahaman mengenai visi yang diinginkan telah diperiksa, dan apakah tanggapan diberikan terhadap masalah yang diangkat oleh staf?							optimal	
in .		Apa ukuran keberhasilan yang telah didefinisikan untuk perubahan ini, baik dari sisi bisnis maupun persepsi?				3			ada SOP	
5	BAI05.06									
5	1.33	Masa Depan (To-Be)						10 march 10 m		
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19		Apakah aistem pengukuran kinerja digunakan untuk mengidentifikasi penyebab akar dari rendahnya adopsi, dan apakah tindakan korektif diambil untuk mengatasi masalah tersebut?					4		pelu perbaikan	
0		Bagaimana hasil audit kepatuhan digunakan untuk mengidentifikasi penyebab utama rendahnya adopsi, dan tindakan korektif apa yang direkomendasikan?				3			ada SOP dan doknya	
į		Bagaimana sistem pengukuran kinerja digunakan untuk mengidentifikasi penyebab utama rendahnya adopsi, dan tindakan korektif apa yang diambil untuk mengatasinya?							optimal	

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18	2	Apakah pemahaman mengenai visi yang dinginkan telah diperiksa, dan apakah tanggapan diberikan terhadap masalah yang diangkat oleh staf?					1			
19	3	Apa ukuran keberhasilan yang telah didefinisikan untuk perubahan ini, baik dari sisi bissis maupun persepsi?				1				
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01		Perhitungan	0	0	0	6	4	0	10	
12		The second secon	В	AI05.06						
13	92290	000000000000000000000000000000000000000	Kondisi Sekarang (AS-IS)							
14	No	Aktivitas Proses	0	1	2	3	4	5	Bukti (Dokumentasi)	
15	1	Apakah rencana operasional dan penggunaan diterapkan dengan baik? Apakah ukuran keberhasilan, termasuk ukuran binnis yang nyata dan ukuran persepaj yang mengindikasikan bagaimana perasana orang terhadap perubahan, telah didefinisikan dan dilacak dengan tepat? Apakah indakan perbaikan diambi jika diperlukan?				1				
6.	2	Apakah sistem pengukuran kinerja digunakan untuk mengidentifikasi penyebab akar dari rendahnya adopsi, dan apakah tindakan korektif diambil untuk mengatasi masalah tersebut?				31				
gr.	3.	Bagaimana hasil audit kepatuhan digunakan untuk mengidentifikasi penyebab utama rendahnya adopsi, dan tindakan korektif apa yang direkomendasikan?					1			
15	4	Bagaimana siotem pengukuran kinerja digunakan untuk mengidentifikasi penyebab utama rendahnya adopsi, dan tindakan korektif apa yang diambil untuk mengatasinya?					1			
19		Jumlah		0	0	2	2	0	Total	
0		Perhitungan		0	0	6	8	0	14	

https://github.com/GiraldoNainggolan/AUDIT-TKTI-PT-Bukit-Darmo-TBK

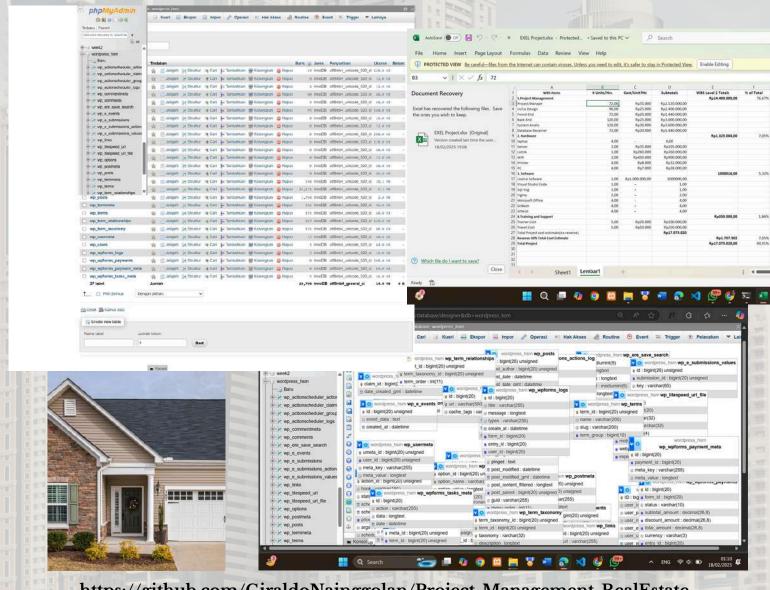
Project Management IT Real Estate in Surabaya

Describtion:

Website ini akan menyediakan platform untuk memudahkan pencarian, pembelian, penyewaan, serta manajemen properti secara efisien. Fitur utama yang akan diterapkan di website ini meliputi pencarian properti berdasarkan kategori, lokasi, harga, dan spesifikasi lainnya, serta sistem pendaftaran pengguna untuk memungkinkan interaksi antara pembeli, penyewa, dan agen properti. Website ini juga akan dilengkapi dengan fitur untuk mengelola listing properti, pembaruan status properti, serta integrasi dengan sistem pembayaran untuk transaksi yang aman.

Technologies Used:

Microsoft Excel / Google Sheets, MySQL, ISO 9001, Microsoft SharePoint / Google Drive, Notion, Trello, Six-sigma, Library Project, Jirra,



https://github.com/GiraldoNainggolan/Project-Management-RealEstate



Buku Pedoman Pegawai

