Muhammad Deral

Data Scientist
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As a Data Scientist with one year of experience, I possess strong skills in data analysis, programming, machine learning,and deep learning. Proficient in programming languages such as Python, R, SQL, Postgre SQL, and MySQL, I am also adept at implementing data visualization tools such as Tableau, Looker Studio, and Power BI. My understanding of data mining techniques and predictive analysis has been demonstrated through direct involvement in various research projects, including at Sriwijaya University, where I utilized machine learning and deep learning to predict rainfall and earthquakes. Additionally, I collaborated with cross-functional teams to develop predictive models, optimize algorithms, and implement them in business decision-making processes. I have effective communication skills in conveying complex technical concepts to non-technical stakeholders, as evidenced during my tenure at Telkom Indonesia. With a career goal of advancing as a Data Scientist, I aim to sharpen my skills, expand my knowledge, and tackle increasingly complex challenges.

SKILLS QUALIFICATION

Software Skills
- Python
- C++ Matlab
- My-SQL,PostgreSQL
- Frappe insight
- Tableau, Loker Studio, Power BI
- Google Big Query
- Directus
- Jupyter Notebook
- Miscrosoft Office

Research Skills
- Natural Language Processing
- Deep Learning
- Machine Learning
- Analysis
- Data Visualization
- Time Series Analysis
- Survival Analysis
- Problem Indication

Soft Skills
- Presentation Skill
- Public Speaking
- Negotiation Skill
- Team Work
- Leadership
- Critical Thinking
- Problem Solving

EXPERIENCE

Data Scientist - Internship Jan 2024 - Mar 2024
Unirama – Jakarta Barat, Indonesia

- Combining Data with SQL JOIN and INNER JOIN from several different sources, thereby increasing the efficiency and accuracy of data analysis.
- Conducting in-depth Data Analysis with Python on EDA (Exploratory Data Analysis) by discovering patterns, trends, and anomalies using libraries such as Pandas, NumPy, and Matplotlib/Seaborn.
- Creating Visualizations in Data Reports using Frappe Insight related to sales, income, and returns in the form of graphs, diagrams, or tables.

Data Scientist - Internship Aug 2023 – Des 2023
Telkom Indonesia – Jakarta Selatan & Bandung, Indonesia

- Collect all data related to Playcourt from BigQuery using SQL, then convert the result of each query into total metrics. Calculate the total Kube Namespaces and the total Cost.
- Creating data visualizations using Looker Studio for Playcourt Aggregate Metrics, utilizing Pie charts, Bar charts, Metrics, Labels, and Line charts.
- Creating data visualizations using Directus for the Filter Global Variable Value based on the created date and updated date. Utilizing a Pie chart for each count of Tribe Code and displaying metric data for each tribe and project name.

- Creating an MVP Tribe Cost Allocation Data Services dashboard that displays filters for fields, use cases/products, and dates. The dashboard includes the Total Cost in Rupiah and Dollar currencies, creates a Pie chart based on tribe data and use cases/products, and a Bar chart that displays service costs based on monthly costs.
- Creating a Grand Dashboard using Looker Studio with filters for Tribe, Product, and Provider Date. The dashboard displays the Total Cost in both Rupiah and Dollar currencies. It features a Bar chart for each value of CSP Holder Tribe, CSP Holder Playcourt, and Self Managed, along with metrics for each value in Rupiah. It also showcases a Line chart comparing the cost of Juskeb, Contracts, Realization, and Infrastructure, and displays the resulting metrics. Furthermore, it presents a Pie chart and a Bar chart as alternative views based on Tribe, Product, Provider, and Cost Structure.
- Automating data mapping using the Java programming language in Apps Script on a Spreadsheet. Filling in the Project_name and Namespace columns based on the information in the Inventaris_vsan column, resulting in a process that is 90% faster than manual methods.
- Automating data mapping using different spreadsheets, which can fill in the product, last_vapt, and dsa status columns. The result of this mapping is 95% faster compared to manual methods.

ACADEMIC QUALIFICATION

Bachelor Degree, Physics Aug 2020 - Present
Sriwijaya University - Indralaya, Indonesia
- GPA of 3.88 /4.
- Assistant for Basic Physics 1
- Assistant for Programming Languages C++ and Matlab
- Assistant for Geophysics
- Outstanding Student at the Faculty Level, Sriwijaya University

PROJECT

Data Scientist - Predict Rainfall Research , Sriwijaya University Mar 2023 - July 2023

- Predicting rainfall in the city of Palembang using the regression model RNN with an R-Squared of 91.6%, MAE of 4.49%, and RMSE of 7.76%. When using the Backpropagation model, it has an R-Squared of 92.40%, MAE of 4.42%, and RMSE of 7.41%. • Creating a suitable algorithm model for this case, then carrying out the stages of data cleansing, data processing, and Exploratory Data Analysis (EDA). Then, conducting the training and testing stages of the model so that it can predict new data.

Data Scientist - Predict Eartquakes – Research, Sriwijaya University Jan 2023 - Mar 2023
- Predicting earthquakes that occurred in the South Sumatra region using the Classification Decision Tree model with Precision of 78%, recall of 94%, and f1-score of 85%.
- Creating a suitable algorithm model for this case, then carrying out the stages of data cleansing, data processing, and Exploratory Data Analysis (EDA). Then, conducting the training and testing stages of the model so it can predict new data. Comparing the accuracy level of several algorithms and choosing the best algorithm.

Data Scientist - Predict Rainfall Research , Sriwijaya University Jan 2023 - Mar 2023
- Predicting rainfall that occurred in the Bogor region using the Classification model Logistic Regression with an accuracy of 85.66%, precision of 82.24%, recall of 85.66%, and F1-Score of 83.37%.
- Creating a suitable algorithm model for this case, then carrying out the stages of data cleansing, data processing, and Exploratory Data Analysis (EDA). Then, conducting the training and testing stages of the model so it can predict new data. Comparing the accuracy level of several algorithms and choosing the best algorithm.

Data Scientist - Starup Campus Nov 2022 - Des 2022
- Creating the best model for Customer Churn using machine learning methods, where previously the data has beencleaned and merged so that it can be used.
- Carrying out the data preprocessing stage and then implementing the best model suitable for Customer Churn cases. Preparing data to be processed during the training and testing stages of data that will be used to predict new data.

- Comparing models from Gradient Boosting Classifier, Hits Gradient Boosting, Random Forest Classifier, LightGBM, and Decision Tree where the average model accuracy value is 93%, Precision 90%, Recall 91%, and F1-Score 91%.
- Creating a Bukapedia Customer Churn Analysis Dashboard which includes metrics on Customer Gain and Customer Churn, Pie Chart by Churn by Gender, Donut Pie Chart by Churn by Status, Bar chart for Churn probability by Time Spent and Average Time For Monetary Churn

ORGANIZATIONAL EXPERIENCE

Data Sciece Weekend Aug 2023 -Des 2023
Data Science Indonesia – Jakarta Selatan, Indonesia

- The honor of participating in the Data Science Weekend 2023 event, hosted by Data Science Indonesia and Telkomsel.
- The event provided with the opportunity to connect with numerous professionals in the technology sector, particularly in the field of Data Science.
- Engaged with influential figures, including CEOs of startups, representatives from Telkomsel, the Minister of Communication and Information Technology, and speakers from diverse regions. Their insights proved
- Assigned a demanding role as part of the Team Operator Mini Stage Data Challenge, which offered a fresh and distinctive experience for you.

TRAINING

Pijar – Big Data Analyst Aug 2023 – Okt 2023

- Exploratory Data Analysis (EDA) EDA is the process of data exploration to discover patterns and insights.It uses data visualization techniques and descriptive statistics.The primary goal is to understand the dataset and prepare it for further analysis.
- Machine Learning Models. Machine Learning models are algorithms that learn from data. They are used to make predictions and automate decision-making. Types include regression, classification, and clustering, depending on the problem.
- Data Cleaning. Data cleaning is the process of identifying and rectifying errors and inconsistencies in a dataset. It includes handling missing data, removing duplicates, dealing with outliers, and data transformation.
- Price Elasticity. Price Elasticity measures the sensitivity of demand to price changes for a product. High elasticity indicates significant demand changes with small price shifts. Low elasticity suggests stable demand even with price changes.
- RFM Customer Segmentation. RFM Customer Segmentation uses three factors: Recency, Frequency, and Monetary value. It is useful for grouping customers based on their purchasing behavior. It assistsin marketing targeting and tailoring strategiesfor each segment.

Starup Campus – Data Scientist Track Sept 2022 – Des 2022

- Learn Python from the basics of loops, arrays, data types used and specific data processing and visualization use Python in Jupyter Notebooks and Google Colab writing and running Python code in an interactive format. Data Processing conducting data cleansing, EDA, data aggregation, and training and testing of data.
- Data Analysis in Google Data Studio for transforming raw data into informative reports and dashboards. Learning SQL in BigQuery for using SQL to manage and manipulate data in BigQuery.
- Presentation at Show Case Customer Churn Predict: Demonstrating your understanding of data and your predictive model in a presentation.
- Complete the basics of frequently used python data types such as importing data and exporting data using the Pandaslibrary and running marchine learning. Model methods of classification, regression and clustering by understanding which algorithms are suitable for each marchinelearning model