

Desti Ratna Komala

Data Scientist

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SUMMARY

Ex-CFD Engineer transitioning into a Data Scientist role after completing Hacktiv8 Data Science Bootcamp to further strengthen my skills and knowledge. Over 1.5 years of experience in the engineering industry, providing best airflow and heat modeling recommendations for clients. Core skills include extrapolating data and providing actionable insights aligned with computer science, modeling and statistical analysis. A proven capability to build and test SQL and Python algorithms, data visualization, and building machine learning models. Additionally, my expertise extends to artificial neural network algorithms. Having previous knowledge of physics engineering helps me generate strategic insight from data models.

EDUCATION

Hacktiv8 Bootcamp Data Science Program. Score: % (Transcript)	Jakarta, Indonesia 06/2023 - 08/2022
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Telkom University Bachelor of Physics Engineering (GPA 3.10/4.00)	Bandung Indonesia July 2014– August 2021
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WORK EXPERIENCE

SCC Investment Corp Data Entry	Jakarta, Indonesia January 2022 – May 2023
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- Verified data by comparing it to source documents
- Updated existing data and typed in data provided directly from customers and created spreadsheets with large numbers of figures

Pusat Penelitian dan Pengembangan Perumahan & Pemukiman CFD Engineer	Bandung, Indonesia December 2018 – August 2019
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- Modeled, simulated, and remodeled multiple projects by identifying the behavior of the airflow, heat flow and plume smoke of the warehouse calorimetry.
- Predicted the smoke distribution around the housing area of PUSKIM and identified the safety category of the wind speed and temperature level around the building

Kinerja Bangunan Indonesia CFD Engineer	Jakarta, Indonesia January 2018 – August 2018
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- Modeled, simulated, and remodeled multiple projects by identifying the behavior of the airflow and heat flow comfort of the Kulongprogo Airport and the balcony of the plaza in Jakarta.
- Saving around 5 million rupiah for using >2 million of hex-meshing to compute the model and predict the speed comfort on ground level building.

Key Achievement: using zero-cost (open-source) CFD software

SKILLS

General Skills: Exploratory Data Analysis, Time Series Analysis, Hypothesis Testing, ETL, Machine Learning, Deep Learning

Programming Language: Python, SQL.

Visualization Tools: Tableau, Looker Studio.

Libraries / Framework: TensorFlow, Scikit-learn, Streamlit, Pandas, Numpy, Matplotlib, Seaborn, Scipy, Feature-Engine.

Techniques: NLP, Computer Vision, Time Series Analysis, Forecasting.

Modeling Algorithms: Regression, Random Forest, Decision Trees, Support Vector Machine (SVM), KKN, Neural Networks, Clustering, and Dimensionality Reduction

Others: Google BigQuery, Hugging Face, Docker

PROJECTS

[Cyberbullying Tweets NLP Analysis](#) [\[Deploy\]](#)

August 2023

Developed algorithms using natural language processing and deep learning models for predictive cyberbullying tweets, had the ability to create and deploy predictive models and achieved 72% accuracy score.

Technology / Tools: Python, Pandas, NumPy, Seaborn, Matplotlib, Scikit-Learn, TensorFlow, Keras, Streamlit.

[Company Customer Churn Prediction](#) [\[Deploy\]](#)

July 2023

Developed a machine learning project utilizing Artificial Neural Network to forecast customer churn for a company, based on historical customer data, and achieved a 90% accuracy score

Technology / Tools: Python, Pandas, NumPy, Seaborn, Matplotlib, SciPy, Scikit-Learn, Feature-Engine, TensorFlow, Keras, Streamlit.

[Airline Passengers' Satisfaction Prediction](#) [\[Deploy\]](#)

July 2023

Developed a machine learning project utilizing classification supervised learning to forecast airline passengers' satisfaction for a company, based on historical passengers data, and achieved a 91% accuracy score

Technology / Tools: Python, Pandas, NumPy, Seaborn, Matplotlib, Scikit-Learn, TensorFlow, Keras, Streamlit.

[Global Suicide Rate Analysis](#) [\[Visualisation\]](#)

June 2023

Designed and analyzed the global suicide rate utilizing using hypothesis testing with statistical methods such as t-tests, ANOVA, and chi-square tests, based on historical global suicide rate data.

Technology / Tools: Tableau, Python, Pandas, Numpy, Seaborn, Matplotlib, Scikit-Learn, Statsmodels, studioloooker.

CERTIFICATIONS

TheForage

Boston Consulting Group Data Science Virtual Experience Program

Certificate: [BGG Data Science Certificate](#)

Issued on August 2023

No expiration date

HackerRank

Python (Basic)

Certificate: [Python \(Basic\) Certificate](#)

Issued on August 2023

No expiration date

SQL (Basic)

Certificate: [SQL \(Basic\) Certificate](#)

Issued on August 2023

No expiration date

OTHER EXPERIENCE

PSTNT-BATAN

Bandung, Indonesia

Research Engineer Intern

April 2017– August 2017

Research Engineer Intern, April 2016 – August 2016

- Analyzed and monitored the thermohydraulic nuclear reactor 2000 by examining the distributions of the temperature level inside the ring of the reactor in real time.
- Sorted and organized the data of the thermal fluid distribution and weekly data of thermal changes in reactor by using MATLAB

Dinas Penelitian dan Pengembangan TNI AU

Bandung, Indonesia

Research Engineer Intern

April 2016– August 2016

Research Engineer Intern, April 2016 – August 2016

- Analyzed, reviewed the firing unit of MANPADS (Man-Portable-Air-Defense-System) QW-3 Missile by examining the thermal sensor indicator and the uncaged indicator of the targeted object.