Desti Ratna Komala

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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. Core skills include extrapolating data and providing actionable insights aligned with computer science, modeling and statistical analysis. 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 — **Jakarta, Indonesia**
Data Science Program. Score: : 89.48% (Transcript) — *June 2023 - August 2023*

Telkom University — **Bandung Indonesia**
Bachelor of Physics Engineering : GPA 3.10/4.00 (Transcript) — *July 2014– August 2021*

WORK EXPERIENCE

Freelance/Remote — **Jakarta, Indonesia**
Data Entry/CFD Engineer — *January 2022 – May 2023*

- 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
- Modeled and simulated multiple projects by identifying the behavior of the airflow comfort of the Bandung traditional market area, the heat flow in AUV (Autonomous Underwater Vehicle), and the airflow efficiency of the rotary roof turbine ventilators.

Pusat Penelitian dan Pengembangan Perumahan & Pemukiman — **Bandung, Indonesia**
CFD Engineer — *December 2018 – July 2019*

- 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 — **Jakarta, Indonesia**
CFD Engineer — *January 2018 – August 2018*

- Modeled, simulated, and remodeled multiple projects by identifying the behavior of the airflow and heat flow comfort of the Kulongprogo Airport.
- 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, base 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, studiolooker.

CERTIFICATIONS

TheForage

Boston Consulting Group Data Science Virtual Experience Program — *Issued on August 2023*
Certificate: BGG Data Science Certificate — *No expiration date*

British Airways Data Science Virtual Experience Program — *Issued on September 2023*
Certificate: BA Data Science Certificate — *No expiration date*

Accenture North America Data Analytics And Visualization — *Issued on September2023*
Certificate: DA Data Science Certificate — *No expiration date*

HackerRank

Python (Basic) — *Issued on August 2023*
Certificate: Python (Basic) Certificate — *No expiration date*

SQL (Basic) — *Issued on August 2023*
Certificate: SQL (Basic) Certificate — *No expiration date*

ADDITIONAL EXPERIENCE

PSTNT (Pusat Sains dan Teknologi Nuklir Terapan) - 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.

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