Hakam Raves

Data Scientist

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SUMMARY

Junior Data Scientist with 1 year of experience as a Data Analyst at an oil and gas company, where I optimized after-sales operation through data-driven insight and dashboard development using Looker Studio. I have gained experience in all aspects of the data science pipeline, from data collection and preprocessing to machine learning modeling using Python, and I also have a strong foundation in Microsoft Excel. Successfully built and deployed machine learning models, including a sports analytics and other projects with Streamlit dashboard deployment. Currently a final-year double-degree master's in applied economics and computer science, where I am interested in applying data science solutions to business and finance.

WORK EXPERIENCE

Kalananti by Ruangguru — **Jakarta, Indonesia**
Freelance Coding Teacher — *June 2025 – Now*

- **Basic coding instructor(Python, Java):** For creating interactive programs with structured logic, input/output handling, and error-free execution, emphasizing problem-solving and financial literacy use cases.
- **Fluent using Bahasa Indonesia and English as the medium of interaction**

Pertamina Lubricants — **Jakarta, Indonesia**
Technical Specialist Data Analyst Internship — *October 2023 – September 2024*

- **Automated reporting system:** Developed automated weekly reports and interactive dashboards using Looker Studio, replacing manual processes for 12 Field Engineers, 8 Key Account Managers, 2 Regional General Managers, and Technical Specialist VP.
- **After-sales services optimization:** Optimized Technical Specialist after-sales operations by implementing data-analytics (running hours, activity hours, weight, and value), which led to a **40% reduction in SLA activity**.
- **Performance analytics:** Performed KPI analysis for 12 Field Engineers through data cleaning and preprocessing of timesheet data using Python, enabling data-driven performance evaluations.
- **Workload optimization:** Performed 1 year workload analysis to identify inefficiencies that resulted in an average **50% reduction in the workload** of Field Engineer.
- **Travel budget forecasting:** Created 6 Month travel expenses forecasts for 12 Field Engineer by utilizing past spending trends and 40% SLA after-sales activity reduction, allowing for a **40% budget reserve** for strategic planning.
- **Data-driven assessments:** Designed and implemented data preprocessing frameworks for Field Engineer Award evaluation, ensuring objective and consistent performance measurement.

Indonesia Biru Foundation — **Lombok, Indonesia**
Software Developer Internship — *April 2021 – September 2021*

- **WordPress web development and Content Management:** Designed and developed responsive website using WordPress CMS.
- **User engagement optimization:** Implemented user-friendly program registration system enabling public participation in coral reef adoption.
- **UI/UX design:** Created mobile app design prototypes using Figma.
- **Android Development:** Converted Figma prototypes into Android application using XML layouts and Java programming, working collaborate by a team of 3 people**.**
- **Database integration:** Developed and implemented dive site database using Google Firebase, enabling real-time data access for android application.

SKILLS

General Skills: Web Scraping, ETL, Exploratory Data Analysis, Feature Engineering, Hypothesis Testing.
Programming Language: Python, SQL, Javascript, C++.
Business Intelligence & Visualization Tools: Microsoft Excel, Looker Studio, Power BI, Streamlit.
Libraries / Framework: Pandas, BeatifulSoup, Selenium Webdriver, Numpy, Matplotlib, Seaborn, Scikit-learn, NLTK, Tensorflow, opencv, RoboFlow, YOLO, Joblib, Streamlit, Scipy.
Techniques: Statistical Modelling, NLP, Computer Vision, Time Series Analysis, Forecasting Modelling.
Modeling Algorithms: Regression, Random Forest, Decision Trees, Neural Networks, Clustering, and Dimensionality Reduction
Other: Github, Google BigQuery, Figma, Firebase.

PROJECTS

Telco Customer Churn Prediction [Github Repo] *September 2025*

I created a model that predicts telecommunication customer churn using machine learning. This model, based on the Neural Network Cl, achieved 95% accuracy. I hope this model can support the efforts of hospitals in diagnosing lung cancer at an early stage, allowing for more effective treatment.

Technology / Tools: Python, Pandas, NumPy, scikit-learn, TensorFlow/Keras, imbalanced-learn, Matplotlib, Seaborn, Plotly, SHAP.

Amazon Product Review Sentiment Analysis [Github Repo] *April 2025*

This project builds a three-class sentiment classifier for Amazon product reviews (positive, negative, and neutral) using modern NLP. The notebook covers data preparation, transformer fine-tuning with Keras/Transformers, evaluation, and inference on new text.

Technology / Tools: Python, Pandas, NumPy, Keras, Hugging Face Transformers.

Heart Disease Prediction *December 2024*

This project explores the UCI Heart Disease dataset to predict disease presence (target: num). It includes EDA, cleaning, visualizations, and classification modeling using clinical features like age, chest pain type, cholesterol, and ECG results.

Technology / Tools: Python, Jupyter, Pandas, NumPy, scikit-learn, Seaborn, Matplotlib, SciPy.

Sneakers Sales Clustering *February 2025*

This project applies unsupervised clustering to Nike and Adidas sneaker listings (data_nike_vs_addidas_unsupervised.csv) using features like listing price, sale price, discount, brand, rating, and review counts to uncover product segments and pricing/discount patterns. It includes interactive scatterplot outputs exported as HTML via HoloViz Panel

Technology / Tools: Python, Pandas, NumPy, Seaborn, Matplotlib, DBSCAN, KMeansClustering, PCA.

RESEARCH

Timeseries Covariates IHSG Prediction *In Progress*

In this in progress thesis, i created two timeseries covariates model that predicts IHSG stock price using other Indonesia stocks, commodity price and Indonesia macroeconomics.

Technology / Tools: Python, Pandas,Numpy,Matplotlib, Random Forest, XgBoost, Darts.

Regression Goal Prediction In German Handball League Player [Thesis] *November 2023*

Machine learning implementation for prediction number of goal of a player in a German Handball League match and analyst what the best type of shot for each position using Radial Basis Function Neural Network and Sensitivity Analysis. I create 12 goal prediction model for each position in Handball except Goalkeeper using radial basis function neural network to predict number of goal. Every position have two model distinguished by two input parameter which is shot attempt and shot accuracy for every type of shot.

Technology / Tools: Python, Pandas, Numpy, Matplotlib, Radial Basis Function Neural Network.

EDUCATION

Binus University **Jakarta, Indonesia**
Master of Computer Science (Data Science Streaming) *2026(Expected)*

Pertamina University **Jakarta, Indonesia**
Bachelor of Computer Science *2023*

ORGANIZATIONAL EXPERIENCE

KONI Kabupaten Bogor **Kabupaten Bogor, Indonesia**
Selected regional athlete that competed in annual multi-event sport *2019-2022*

- Joined Kabupaten Bogor athlete training camp (Pelatda) for three event. Kejurda Jawa Barat 2019 Road to PON, Kejurnas 2019 and Pekan Olahraga Provinsi (PORPROV) Jawa Barat 2022.
- Contributed to hold a Handball tournament by Kabupaten Bogor to fostering youth athlete with total 24 team's participant

Universitas Pertamina **Jakarta, Indonesia**
Head of the Kekeluargaan Pertamina University Computer Science student association *2019-2020*

- Supervised 3 people to planning and execution of activities that fostered sense of community among computer science students

Staff of external division at the Pertamina University Computer Science student association *2018-2019*