ADITYA ARIE WIJAYA
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ABOUT ME

As a graduated geoscientist, I have acquired an extensive data-driven analytic mindset, and complex problem-solving skillset that can be applied to real-world challenges. Through ten years of my professional experience in the industry, I developed a strong skills in data wrangling, effective data visualization to gain insights and better communication to stakeholders. I care about meaningful data visualization, deliver minimum viable product, and simplified data modelling to solve problem at scale while minimizing the cost.

DATA SCIENCE SKILLS

- Python: Basic Syntax, Function & OOP, Defensive Programming, Clean Code, Virtual Env
- Data Visualization: EDA, Matplotlib & Seaborn, Tableau, Geospatial, Network Graph
- Data Wrangling: Numpy & Pandas, Regex & String Manipulation, Time Series, Pipeline
- SQL & Tooling: Query Manipulation, Shell Tooling, CLI & Bash Scripting (Cron), Git
- Probabilistic & Linear Algebra
- Machine Learning Process and Workflow (**in process**)

DATA SCIENCE PROJECTS

1. **Machine Learning Project [Web-scraping and Predicting Rent Pricing]**

   Rent pricing, similar to House pricing (Kaggle famous housing price) is affected by multiple features such as size, furnishing, location, number of bedrooms, number of bathrooms, etc.

   This project is made by creating a real-world dataset from web-scraping one of the biggest property-to-rent website in Malaysia, for properties in Kuala Lumpur and its surrounding. About 10,000 observations was acquired, and then used for making the regression model was used to predict the rent pricing, where the Random Forest and Gradient Boosting take the first and second place (respectively) in terms of accuracy (R2-score) and error (MAE). Scoring 95% accuracy and 100 Ringgit error in train dataset, and 80% accuracy and 200 Ringgit error in test dataset. Based on feature importance analysis, size of the rent unit takes the biggest portion in determining the rent pricing, followed by furnishing and completion year.

   Link: https://ariewjy.github.io/posts/006-easy-report-machine-learning/

2. **Web Application Petrophysics Plotter**

   University students often having difficulties in visualizing a well log dataset from industry standard format such as LAS file. Seeing through a data visualization can ease the learning process of a complex subject. This project is made as a web application to load LAS file, and format it in industry standard display, tinkering with the parameters in the process, and exported to ready-to-use format for further analysis. The web application also come with pre-built LAS file to try, before they can use file of their own.

   Link: https://plotpetrophysics.streamlit.app/

3. **JABAR Stunting**

   A worldwide data shows that increasing stunting index has a negative effect to the growth of one country GDP (Gross Domestic Products). Recent study done in 2021, indicated that four regions in West-Java suffered from a high stunting index. As a province that aspire to grow its human development, West-Java province can benefit from a dashboard that can show a quick view of the entire regions in West-Java province, what metrics that are importance for certain region that may not be the same to other regions, e.g. sanitation, ASI, etc. This project is to highlight the use case of dashboarding to help government act and plan accordingly to lower the stunting index in West-Java province.

Presentation: https://bit.ly/JABAR_stunting_project

Report: https://bit.ly/JABAR_stunting_report

Dashboard: https://bit.ly/jabar_stunting_dashboard

4. **PDF-to-Text Extractor**

   Extracting text from a PDF format can be done through Microsoft excel, however this is limited when the PDF is a text-formatted PDF. Old documents, can have a scanned documents where the text is not detected as a text, but rather an image. This project is built to allow the extraction of texts from a scanned-text-image in a PDF into a format that can be copied and used for further purposes. This can be useful for old documents with important information.

   Link: https://pdf2text-extractor.streamlit.app/

5. **UN Data Insights**

   During 2015-2019 era, UN (National Exams) has been used widely as a single metric to know and allow whether a student passed the level or not. After the newly appointed minister of education, this is no longer be the case, however it is interesting to see the distribution of education level throughout the provinces in Indonesia using UN as a proxy. This project is a data exploration, trying to answer the question on education decentralization during the year of 2015-2019 in Indonesia. Is a high level of education still centralized in Java, Bali, and its surrounding?

   Link: https://ariewjy.github.io/posts/004-webscraping-indonesia-national-exam/

PROFESSIONAL EXPERIENCES

Halliburton Sdn. Bhd. | Kuala Lumpur, Malaysia
Geoscientist (September 2017 – **present**)

- Communicated the results of data evaluation and interpretations to internal and external stakeholders through presentations, workshops or written reports.
- Delivered machine learning model (SOM) for classification model for imbalance dataset.

PT. Halliburton Logging Service | Jakarta, Indonesia
Geoscientist (March 2014 – September 2017)

Geominergy Sungai Lilin Ltd. | Jakarta, Indonesia
Petrophysicist (June 2013 – March 2014)

LKFT UGM | Yogyakarta, Indonesia
Geologist/Geochemist (July 2012 – June 2013)

PROCEEDINGS

- Integrated Evaluation of Laminated Sand-Shale Gas-Bearing Reservoir Using Tensor Model. A Case Study Combining Data from Triaxial Resistivity, Image, Sonic, And Reservoir Testing in B-Field, Malaysia. SPWLA 62nd Annual Logging Symposium 2021.
- Full Well Corrosion Insight – Case Studies in the Added Value of Electromagnetic Thickness Measurements During Well Interventions. SPE/ICoTA Coiled Tubing & Well Intervention Conference & Exhibition 2021.

- Multi-Detector Pulsed Neutron Tool Application in Low Porosity Reservoir – A Case Study in Mutiara Field, Indonesia. SPWLA 61st Annual Logging Symposium 2020 *(selected paper for SPWLA Journal of Petrophysics 2020 Dec Edition)*
- Practical Application of Tensor Model in Laminated Sand Shale Analysis. Abu Dhabi International Petroleum Exhibition & Conference 2019.
- Behind Casing Gas Identification Using Ultrasonic Wireline Logs: An Overview of Multiwell Field Plug and Abandonment Study, Offshore Malaysia. SPE Symposium: Decommissioning and Abandonment 2019.
- Where's the Water Coming from? — A Combined Formation Saturation, Production Logging, Water Flow, and Leak Detection Diagnosis Deployed on Coiled Tubing. SPE/IATMI Asia Pacific Oil & Gas Conference and Exhibition 2019.
- Success Novel of Integrating Pulsed Neutron and Comprehensive Production Data Analysis to Optimize Well Production. SPWLA Asia Pacific Symposium 2018, Indonesia.

ABSTRACTS

- Thru-Tubing Integrity Assurance in CO2-Injection Well Using Electromagnetic Corrosion Logging Tool: A Case Study in Far East Test Field, Japan. The 26th JFES, SPWLA Symposium 2021 (*best presentation award*).

EDUCATION

Gadjah Mada University | Yogyakarta, Indonesia.
Bachelor's degree of Geological Engineering (2012)

- **Result**: 3.15/4.00 GPA