



Port
Folio

Projects

E&P Project

Core Analysis: Measuring Acoustic Impedance on Sandstone

Collabs with Wisfir Lab – Physics ITB, the research was presented in SEG Forum in Boston, USA. The subject to understand the effect of wave sound in a formation when CO₂ detected in the hydrocarbon.

Both measurement, picking P- and S-wave, and deterministic equation were performed with my advisor as part of my final Bachelor's project.

Multi-Inversion Analysis on Roabiba Sandstone

Thesis project with one of Indonesian oil and gas company to perform multi-inversion method: deterministic and stochastic to analyze sandstone reservoir distribution on map based on well and seismic elastic properties.

Even with limited well data, the comparison between two methods could perform a probability of sandstone distribution within radius 5 km from the well location.

Pore Pressure Analysis in East Java Area

Another assignment was performing a pore pressure analysis in one of field in East Java using 3D seismic and two wells data.

Using an advanced software, the study was successfully identified distribution of pore pressure with 3D seismic and velocity cube within the field area.

Central Java Regional Seismic Interpretation

Work as Junior Geophysicists, one of my assignment was to do seismic 2D interpretation in the regional of Central Java for about 4 months.

The outcome still made mistakes geologically but it was the first exposure as a professional to process seismic interpretation

Reservoir Analysis Using Multi-Attributes Method

The final assignment before took my master degree was multi-attributes project to detect any potential reservoir in onshore of Sumatera. It's part of development project. The multi-attributes performed spectral decomposition and fault detection to find regional outlook in the target area.

In addition, to apply elastic properties, seismic inversion also performed with three wells available using deterministic model-based inversion

IT Technology Project

G&G Data Management System Solution

A web based application with standard data model of PPDM and GIS combined to manage and store G&G technical data.

It based on SQL schema tables and geodatabase from Esri. Through this combination, it successfully enabled capability to view both seismic properties, SEG-Y, and LAS file on the web

GIS Development and Analysis

Along with G&G management system, GIS analysis and development become the key factor to improve the solution capabilities. As Data Specialist, analyze GIS data include drone imaging, seismic grid surface, and marine traffic.

GIS development utilizes Python as the main tool to convert, manage, and deploy into web server.

Well Schematic Drawing Project

A small project with one of oil company in Jakarta, Indonesia provide a solution to re-draw well schematic diagram into a standard format. The project processed for about 30 wells and few wellhead platform.

It was the first time professionally become a trainer for 3 days to train drilling engineer in how-to-use the well schematic application.

Automated Data Communication Solutions

All managed data have been well stored in database, with user permissions, the updated and historical data can be accessed and informed through multi-platforms solution include Production Whatsapp Message, Dashboard Mail, and Active Production Widget (Windwos).

All the information are integrated with database and sent automated by both schedules and API.

E&P Application Support and Administration

Besides GIS data, my task as Data Specialist is become an admin support to manage and maintain seismic, well, drilling, and production data from differ applications.

Working with both Linux and Windows environment were very challenging experience yet enjoyable learning process.

ETL Data Processing for Production and Facility Real-Time Data

Production and facility received both daily and real-time. To comprehend the information, I utilize Python to maintain raw data from differ format into SQL and No.SQL database format.

As part of automation and reporting system, Talend Open Data tools also used in the process. Both Python script and Talend Job are now processed in real-time.

Portfolio Website with ReactJS

Applied for course from Ehizeex Okwuose in Udemy was a success training. Through the course, my portfolio website can be deployed with current excited design and web layout.

Learning Javascript and any other front- and back-end script become a new passion of current learning path.

Real-Time Monitoring using Kafka and Grafana

The pipeline streaming built-on Kafka then be utilized and transfer into visualization database and web apps to monitor real-time data and applied alert system to inform any case of the facility shutdown or sensor problem

This study implementation have been submitted for an international paper presentation next year.

"Droveids" web app with PHP and Apache

Drone footages received from the field measurement were stored in the server and to enable accessibility, I managed to build to watch the video like "Netflix".

It deployed internally in my work environment and has been integrated with our G&G data management system

Pipeline streaming data with Kafka and Docker

The project was actually a study to enhance current ETL data processing. By enabling the pipeline streamer, the process could run without any additional windows scheduler.

The idea was to grab IoT sensor from the operation field and store the data into a repository database with very low cost and durable.

Machine Learning Apps for Stock Market

As part of my investment learning curve, I tried to build a machine learning apps to analyze and predict stock market price.

It's remain on development phase to improve prediction rate and automation capability.

Supervised Machine Learning to Analyze Bit Drilling

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Personal Growth Project