



**Lee Ming Xiang** ✉ [mingxiang1006@gmail.com](mailto:mingxiang1006@gmail.com)

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I am a data scientist with petroleum geoscience background. I have 2 years of broad-based experience in building machine learning solutions in solving oil and gas industry challenges, specifically in production, petrophysics and geophysical domains. Proficient in predictive modelling, data processing, data analytics, and Python scripting. Fundamental knowledge in cloud computing helps in building end to end digital solution. I am active in learning, and proactive in trying innovative ideas for problem solving.

 <https://www.linkedin.com/in/ming-xiang-lee-23610a95/>

 <https://github.com/mingxiang1006>

### Core Skills

Machine Learning,  
Petroleum Geoscience,  
Deep Learning,  
Natural Language Processing,  
Data Visualization,  
Data Mining

### Syntax & Software

Python,  
Structure Query Language  
(SQL),  
Spotfire, Power BI,  
Azure,  
Oracle Database,  
Docker, Dataiku,  
Petrel, Omega

### General Skills

Problem Solving,  
Teamwork,  
Adaptability,  
Organizing/ Planning,  
Decision Making,  
Proactive Learning,  
Fast Learner

### Working Experience

#### Data Analytics Engineer

*KL Innovation Factori, SLB*

*Jun 2021 – Present*

*Kuala Lumpur, Malaysia*

##### 1. Information Retrieval from Oil and Gas Unstructured Data

- Automated information extraction, and relationship extraction from Daily Production Report applying Natural Language Processing (NLP).
- Mentoring Petro Digital Expert (PDE) candidates in researching for oil and gas language model and rapid risk identification from Daily Drilling Report.
- [Abstract](#) accepted and presented in **EAGE Digital Conference**.

##### 2. Pattern Recognition between Petrophysics and Production

- Cross domain machine learning prediction project in team to recognize the dominant factor in predicting the production potential.
- Applied and compare various machine learning algorithms in predicting the hydrocarbon flag, perforation zone, permeability, and production rate.
- Generated hypothesis testing to find correlation between estimated petrophysical production rate and the actual production rate.

##### 3. Well Performance Analytic Dashboard

- Deployed diagnostic Spotfire analytics dashboard to identify the overperforming and underperforming well.
- Positive feedback from stakeholders on the usability, and dashboard visualization.
- Integrated workflow from retrieving data using API, data processing, to data analytics from Production Data Foundation, Dataiku to Spotfire.

##### 4. CO2 Emission Monitoring based on Prediction of Gas Fuel Rate using Machine Learning

- [Abstract](#) accepted and presented in **EAGE Conference on Digital Innovation for a Sustainable Future**.
- Business impact award for 2021 SLB Asia Sustainability Hackathon.
- Deployed Extra Tree algorithm in predicting the gas fuel rate to calculate the emitted CO2 in next 7 or 14 days.
- Created a predictive analytic dashboard using Power BI by ingesting the data using API from the Dataiku Server.

#### Geophysicist

*WesternGeco, SLB*

*Mar 2018 – Jun 2021*

*Kuala Lumpur, Malaysia*

- Geophysicist in seismic data processing team to enhance seismic imaging quality for depth migration, Amplitude Versus Offset (AVO) analysis and interpretation purpose.
- Delivered Adaptive Deghosting dashboard in streamlining one of the geophysical workflow efficiency by saving ~70% of man hours and cost.
- Experienced in data mining from XML semi-structured data.

## Certifications



**DELFI Data Science  
- Practitioner**



**Dataiku Core  
Designer**



**Dataiku ML  
Practitioner**



**Dataiku Advanced  
Designer**



**Tibco Certified  
Associate Spotfire**



**Industrial Data  
Fundamentals**



**Data Fusion  
Fundamentals**



**OSDU Developer  
Training**



**Oracle Database  
Design**



**Oracle Database  
Programming  
with SQL**



**Azure AI  
Fundamentals**



**Azure Data  
Fundamentals**



**Geosolutions  
Horizon Fixed Step  
Training Phase 1 ,2,3**

## Mentoring and Leadership

### **Technical Committee for SLB Machine Learning Innovative Competition**

*Jan 2023 - Jun 2023*

Review the data science challenges and DELFI technology stack used for the competition.

### **Technical Committee & Mentor for APGCE GeoHackathon**

*July 2022 - Nov 2022*

Worked with Petronas management, geoscientists, and data scientist in developing oil and gas upstream data science challenges. Mentoring participants in applying data science to domain challenges.

### **Technical Committee for SLB Beijing Geoscience Center**

*Dec 2021 - Jan 2022*

- Introduced the hackathon challenge in forecasting the production decline curve using both production and formation data.
- Collaborating with colleague in Beijing in preparing the data, machine learning workflow and documentation for the hackathon challenges.
- The hackathon has 133 participants joined from Kuala Lumpur, and Beijing.

## Self-Learning Projects

- Future Sales Prediction  
[https://github.com/mingxiang1006/Predict\\_Future\\_Sale](https://github.com/mingxiang1006/Predict_Future_Sale)
- Telco Customer Churn Prediction  
<https://github.com/mingxiang1006/Telco-Customer-Churn-Prediction>
- Nasdaq Stock Portfolio Optimization  
<https://github.com/mingxiang1006/Stock-Portfolio-Optimization>

## Education

### **Master of Data Science**

*Oct 2020 – Jun 2022*

*University Malaya (UM), Kuala Lumpur*

Master Thesis: Generation of Carbon Dioxide Emission based on Prediction of Gas Fuel Rate using Machine Learning

### **Bachelor of Technology (Hons) in Petroleum Geoscience**

*May 2012 – May 2017*

*University Technology PETRONAS (UTP), Perak*

Majoring in Exploration Geophysics, Fundamental in Geology, Petrophysics, and GIS  
Final Year Project: Application of Simultaneous Inversion in Sarawak Basin, Malaysia

### **Student Exchange Program**

*Aug 2015 – Dec 2015*

*Missouri University Science & Technology, United States*

Studied Petroleum Economics, Reservoir Characterization, General Psychology and Technical Communication