

## Skills and Stack

- **Machine Learning, Deep Learning, MLOps:** PyTorch, XGBoost, MLFlow, Optuna
- **Data Science:** VSCode, GeoPandas, Apache-Sedona, polars, ydata-profiling, BigQuery SQL, ArcGIS Pro
- **Deployment:** Git, GitHub, DagsHub
- **Relevant coursework:** spatial analysis, clustering, classification, time series forecasting, graph data science
- **Languages:** Bahasa Indonesia (Native), English (CEFR Level C1/IELTS 7.5).

## Professional Experience

### ESRI Indonesia (GIS Software & Services)

Jakarta, Indonesia

*Data Scientist**January 2023 – present*

Esri Indonesia provides GIS solutions and services to various industries in Indonesia, including local and national government, natural resources, utilities, transportation, telecommunications, and commercial.

- **GIS-Based Market Development:** collaborated with solution team to developed a dashboard able to showcase current market presence and potential leads. Handled the data processing pipeline capable of handling 193 million records, reducing manual process time by 72%. Applied a statistical method to classify ~300 top priority leads out of 4000 prospects
- **Air Quality Index (AQI) Forecasting:** developed novel timeseries forecasting methods to forecast the next 48 hours of AQI trends. Designed and automated experimentation process using Optuna resulted in >80 experiment combinations and used MLflow and Dagshub to monitor the result. Best model achieve RMSE of ~7.14 with data ranged from 40-160.

### Zenius Education (Ed-Tech)

Jakarta, Indonesia

*Business Intelligence Analyst**December 2021 - July 2022*

Zenius is a well-know ed-tech company pioneer focus on increasing thinking capacity and building foundational thinking for junior and senior high school student to help them excel in their school

- **Workflow management:** structured a system to increase workflow transparency and accountability. Increased the ability to manage and monitor ad hoc and internal tasks/projects from 0 to 16+ tasks/projects weekly.
- **Dashboard:** created 3 dashboards with google data studio for growth, finance, and content teams with over 50 metrics ranged from operational to C-level granularity.

### Gojek (Q-commerce and Financial Services)



Jakarta, Indonesia

*Junior Risk Data Analyst ⇒ Risk Data Analyst**April 2019 - December 2021*

GoTo's ecosystem comprises of on-demand transport, e-commerce, food and grocery delivery, logistics and fulfillment, and financial services through the Gojek, Tokopedia and GoTo Financial platforms.

- **Fraud analysis:** analyzed up to 1000 GPS movements daily to determine fraudulent patterns for constructing fraud rules of fourwheels and two-wheels platforms.
- **Rule deployment:** prevented new modus operandi from exploiting a GPS related-loop-hole in the production apps. Fraudsters abused this loop-hole for financial gain and reputation hijack. Reduced the number of case significantly from 400 to 10 cases daily, with false positive rate under 1% within a month.
- **Rule enhancement:** analyzed the hypothesis made fraud my team then enhanced the rule by applying a more sophisticated method of fraud identification (relational graph logic) to detect the convoluted device connection/relation. Increased the detection rate by 50%.

## Project

- **Book Recommendation System:** built a local web app to give user a book recommendation based on collaborative filtering logic. Also created a simple search engine to ensure users are asking the correct book to be recommended. 
- **MIT IDSS Course - Hackaton:** the objective of this problem is to understand which parameters play an important role in swaying passenger feedback towards a positive scale. Created logistic regression, XGBoost, and Deep learning model resulting in accuracy above 92%. 
- **JDVF - Tableau Dashboard:** this dashboard provides the government, NGO, and researcher among many other stakeholders a start to make data-driven decisions and policy-making regarding flood mitigation in West Java. [\[Tableau Public\]](#)

## Education

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### MIT IDSS: Data Science and Machine Learning

Remote

*An online professional course taught by the MIT faculty*

*August - November 2022*

Topic covered: statistics, unsupervised and supervised learning, hypothesis testing, deep learning, recommendation system, network and graphical model, and predictive analysis.

### Institut Teknologi Bandung

Bandung, Indonesia

*B.Sc in Geodesy and Geomatics Engineering, GPA 3.21/4.00.*

*July 2014 - October 2018*

Topic covered includes: calculus, statistics, GIS, satellite geodesy, remote sensing, spatial database, cartography.

## Leadership/Voluntary Experience

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### Yayasan Anak Bangsa Bisa (YABB)

Jakarta, Indonesia

*Mentor/Instructor - Generasi Gigih*

*July - December 2021*

Yayasan Anak Bangsa Bisa (YABB) is a non-profit organization founded by Gojek, a catalyst that enables resilient change makers to solve pressing challenges and build sustainable communities. Generasi Gigih programme focuses on generating tech-talent by conducting intensive bootcamp to prepare fresh graduates for the tech industry.

- **Designed, created, and lectured:** data analysis lecture materials (Python and SQL for data analysis).
- **Mentorship:** guide and mentor to the participants during their internship. Ensured the participants gained the most during their internship while maintaining the focus of the projects they were working.

### Ikatan Mahasiswa Geodesi ITB (IMG-ITB)

Bandung, Indonesia

*Chairman of IMG-ITB (Executive Student Council)*

*August 2017 - March 2018*

Ikatan Mahasiswa Geodesi ITB (IMG-ITB) is a profession-based student association.

- **Visioning:** designed a blueprint as the north star metrics of the association. Mainly focus on character and mindset development in a professional manner and making concrete social impact.
- **Executive function:** managed a council consisted of 5 ministries and 15 departments to maintain and develop the student association.