

## Summary

Bachelor of Science in Geodesy and Geomatics Engineering with a strong passion for spatial science and data science. Over 5 years of experience in the data industry, including 2 years dedicated to data science. Shows Commitment to continuous learning and growth, by maintain a blog documenting my data science journey and insights into life. Possess leadership experience and actively volunteer to teach data science to others, demonstrating a commitment to knowledge sharing and community engagement.

## Skills and Stack

- **Machine Learning, Deep Learning, MLOps:** PyTorch, YOLOv8, XGBoost, MLFlow, Optuna, [scikit-learn](#), [statsmodel](#), TensorFlow, Darts, DVC
- **Data Science:** VSCode, GeoPandas, Apache-Sedona, polars, ydata-profiling, BigQuery SQL, ArcGIS Pro [Neo4j](#), [Cypher](#),
- **Deployment:** Git, GitHub, DagsHub, [Gradio](#), [HuggingFace](#), [Azure](#), [AWS](#)
- **Relevant coursework:** computer vision (image classification, object detection), spatial analysis, time series forecasting, clustering, classification graph data science,
- **Languages:** Bahasa Indonesia (Native), English (CEFR Level C1/IELTS 7.5).

## Professional Experiences

### 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
- **GIS-Based Market Development:** created 2 custom geoprocessing tools to handle spatio-temporal data processing capable of handling 193 million records.
- **Air Quality Index (AQI) Forecasting:** developed a deep learning timeseries forecasting pipeline to forecast the next 48 hours of AQI trends. Designed 36 experimentation combination and used MLflow and Dagshub to monitor the result. Best model achieve RMSE of ~7.14

### 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-loophole in the production apps. Fraudsters abused this loophole 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%.

## Projects

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- **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. [\[repository\]](#)
- **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%. [\[repository\]](#)
- **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. [\[Tableau Public\]](#)

## Educations

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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 Experiences

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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 and created:** data analysis lecture materials (Python and SQL for data analysis).
- **Gave Lecture:** on 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.

## Miscellaneous

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- **Topic:** education, environment, game industry, movie, leisure.
- **Book:** history, sociology, biography, religion, psychology.
- **Activity:** SCUBA diving, hiking, gym, PC game, writing.