

# PORTOFOLIO

*Fajar Kurniawan*

Reach out

# GET TO KNOW ME

## *Education Background*

2012 - 2016 | Gunadarma University  
Bachelor of Computer Science

2018 - 2020 | Indonesia Defense University  
Master of Defense Science of Sensing Tech

## *Professional Experiences*

Indocyber Global Tech | 2017  
Java Developer

Sinarmas Multifinance | 2018  
IT Staff - Java Developer

Jakarta Smart City | 2021 - Present  
Senior Data Engineer

## *Technical Skills*

- ETL Tools
- Programming Language
- Data Warehousing
- Linux Command
- CI CD
- Data Pipelines
- Visualization
- API Management
- Orchestration Workflow
- Docker
- Geospatial
- Teamwork
- Leadership



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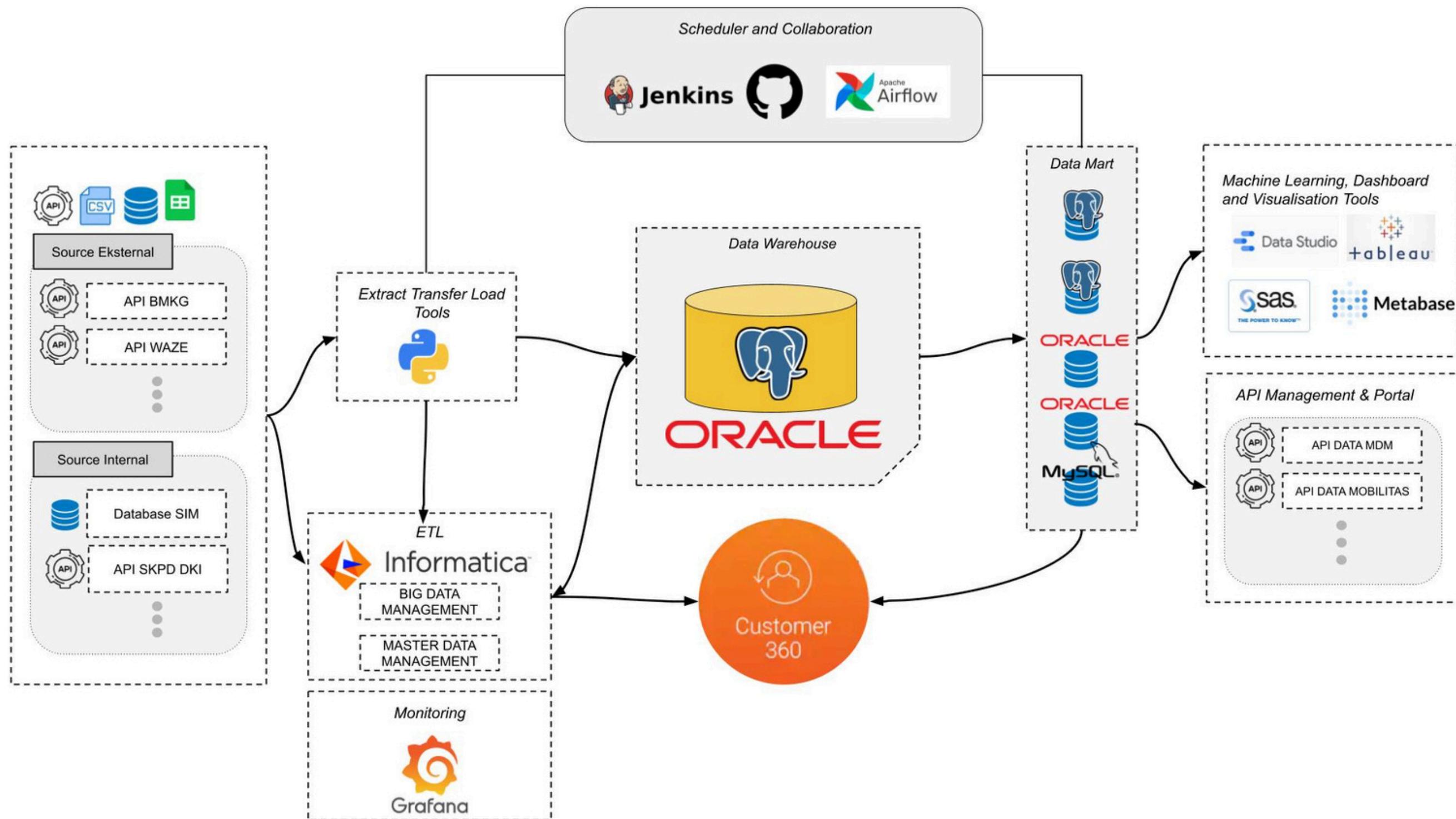
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<https://ieeexplore.ieee.org/author/37089278974>

# ARCHITECTURE DATA



The data architecture was implemented on-premise on Jakarta Smart City and remains in active use today. It is designed for scalability and efficiency, leveraging primarily open-source tools to optimize cost and flexibility. This architecture supports various data processing and analytics needs while ensuring reliability and performance.

The screenshot shows a blue-themed website for the 'Stunting Project for Jakarta'. At the top, there's a navigation bar with links for 'Beranda', 'Data', 'Bantuan PMT', and 'Media'. The main title 'JAKARTA BERAKSI' is displayed above the main heading 'Jakarta Bergerak Atasi Stunting'. Below the heading is a sub-headline: 'Dapatkan informasi lengkap terkait penanganan stunting di Jakarta, mulai dari data, layanan konsultasi hingga penyaluran bantuan.' Two buttons are visible: 'Cari Tahu Selengkapnya >' and 'Data Stunting di Jakarta >'. At the bottom, there's a diagram illustrating the data flow from various sources through ETL tools to a central Oracle database, and finally to visualization tools like SAS and Looker.

JAKARTA BERAKSI

# Jakarta Bergerak Atasi Stunting

Dapatkan informasi lengkap terkait penanganan stunting di Jakarta, mulai dari data, layanan konsultasi hingga penyaluran bantuan.

Cari Tahu Selengkapnya > Data Stunting di Jakarta >

Source Data

Extract Transform Load Tools

Database Oracle DB Source

Database Oracle VA

Visualisation Tools

SAS

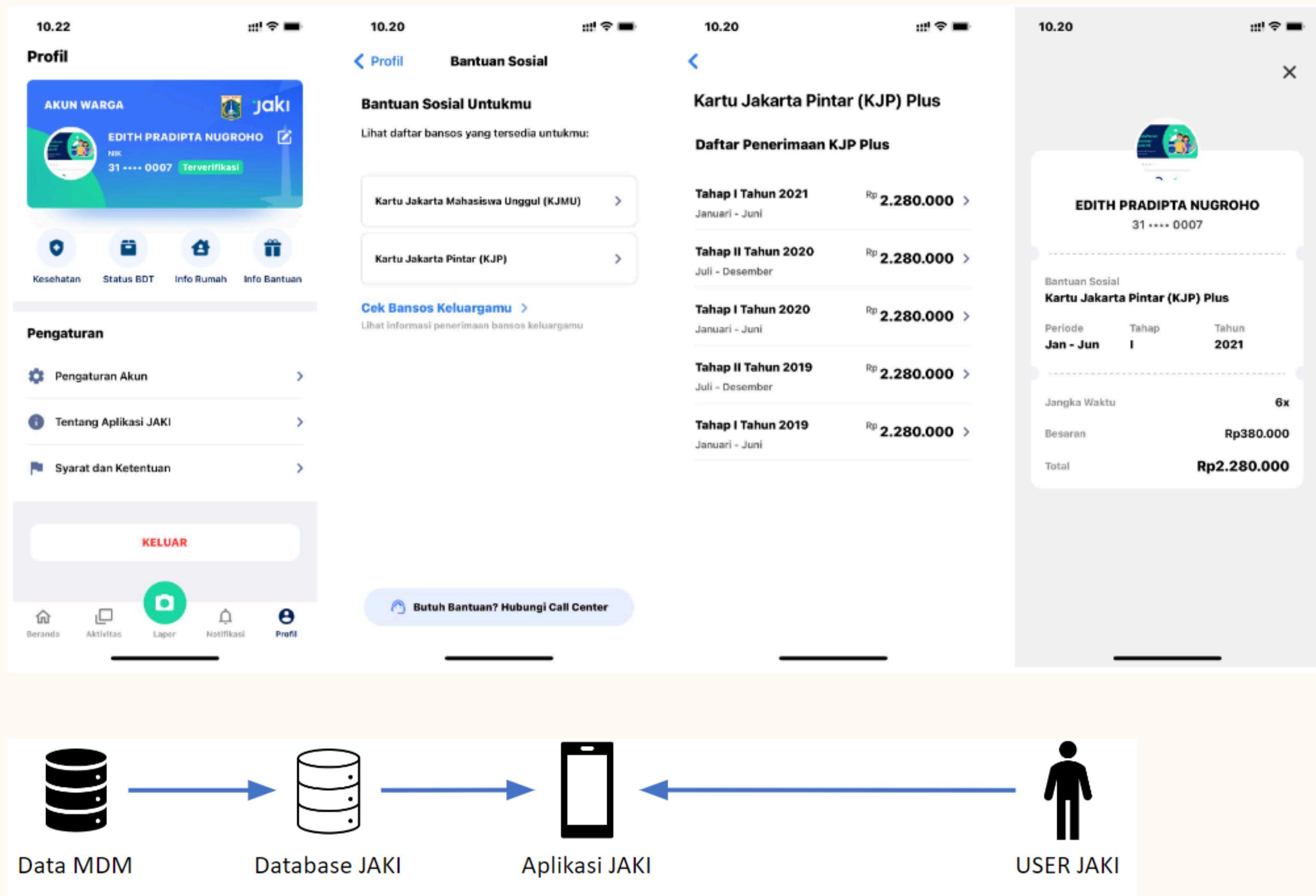
Looker

## JAKARTA IN ACTION STUNTING PROJECT FOR JAKARTA

This project was developed in collaboration between Jakarta Smart City and the Jakarta Health Department to monitor and address stunting cases in the city. As a Data Engineer, I was responsible for data cleansing and integration to ensure accurate and reliable information for the dashboard. The platform provides actionable insights to support decision-making in stunting prevention and intervention efforts.

<https://stunting.jakarta.go.id/data>

# THE DIGITAL ID ON JAKI APP

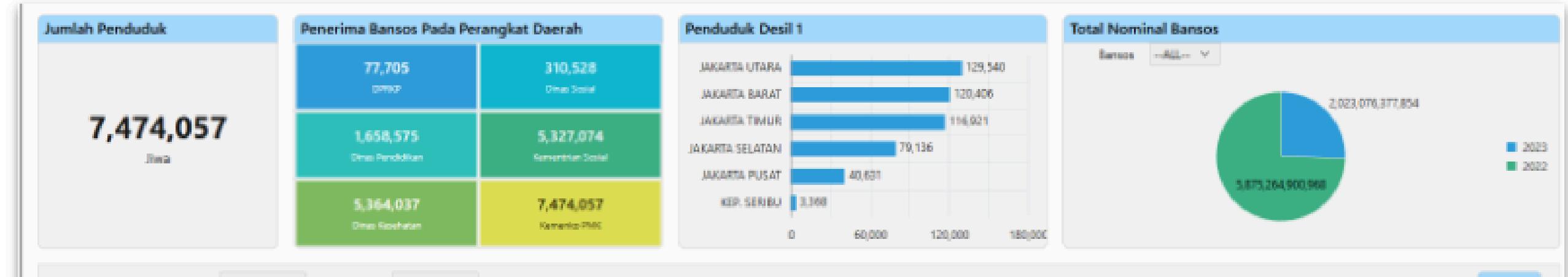


Developed to verify citizens' identities for the efficient distribution of government social assistance. This project was a collaboration between Jakarta Smart City and multiple institutions that own relevant data. As a Data Engineer, my responsibilities included making data pipeline strategies, data cleansing, integration, and regular updates to ensure data accuracy. Additionally, I managed the database infrastructure to support seamless and reliable operations.

Link : [jaki.jakarta.go.id](http://jaki.jakarta.go.id)

# MASTER DATA MANAGEMENT

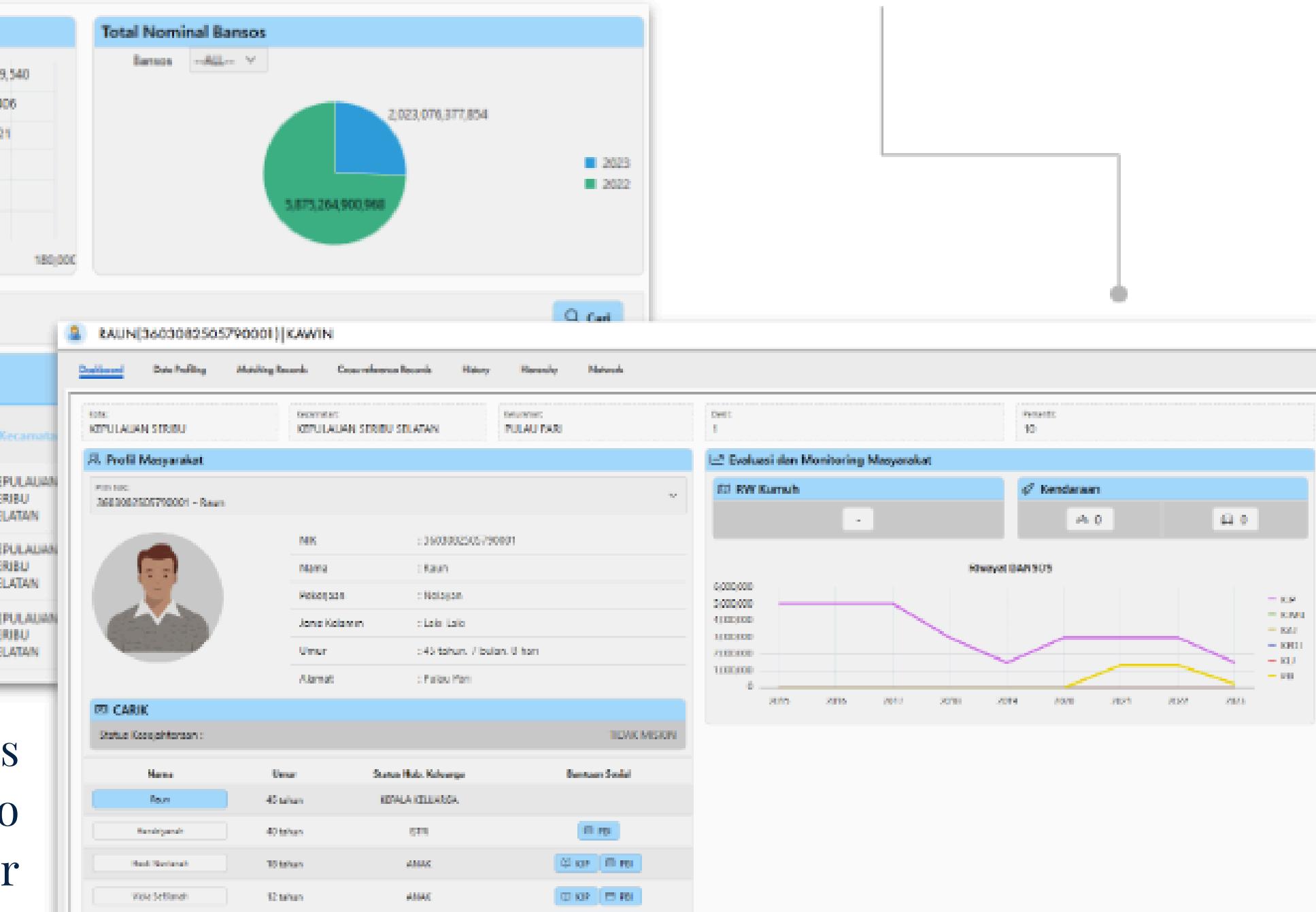
## Homepage Dasbor C360



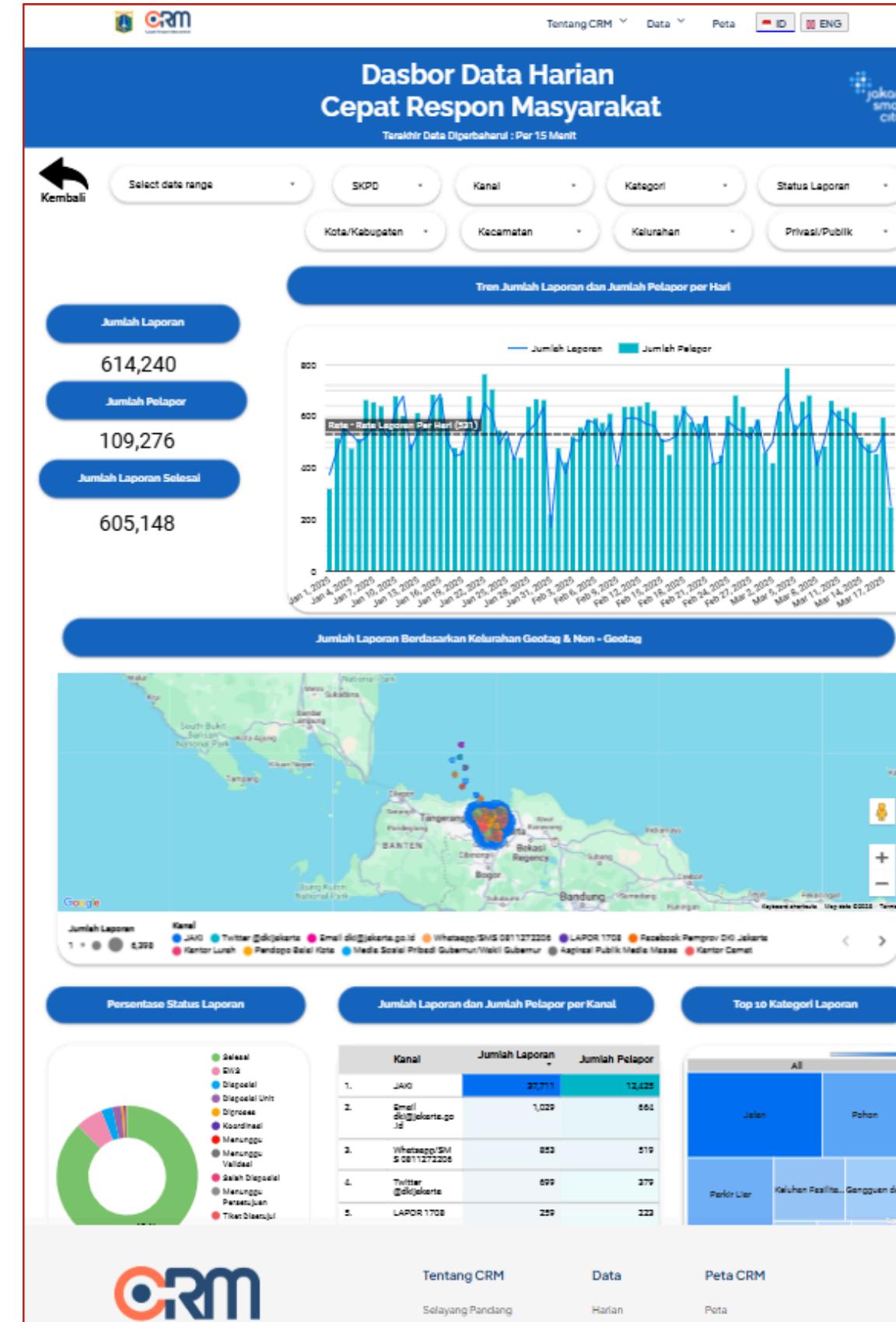
Data Penduduk												
NoK	Nama	No KK	Tanggal Lahir	Usia	Jenis Kelamin	Status	Pekerjaan	Alamat	Rt	Rw	Kelurahan	Kecamatan
3101025102840001	HENDRIANAH	31010220204180009	11-02-1984	40	PEREMPUAN	KAWIN	PEDAGANG	PULAU PARI	4	4	PULAU PARI	KEPULAUAN SERIBU SELATAN
3603082505790001	RAUN	31010220204180003	25-05-1979	45	LAKI-LAKI	KAWIN	NEGLAYAN	PULAU PARI	4	4	PULAU PARI	KEPULAUAN SERIBU SELATAN
3101024711060001	HESTI NOVIANAH	31010220204180005	07-11-2006	17	PEREMPUAN	BELUM KAWIN	TIADA/BELUM BEKERJA	PULAU PARI	4	4	PULAU PARI	KEPULAUAN SERIBU SELATAN

This Master Data Management (MDM) system was developed to support citizen investigations related to social assistance, behavioral patterns, and other analytical needs. As a Data Engineer, I was responsible for data management, integration, and ensuring data consistency through cleansing and mapping processes.

## Detail Dasbor Profil Warga



# JAKARTA RAPID CITIZEN RESPONSE

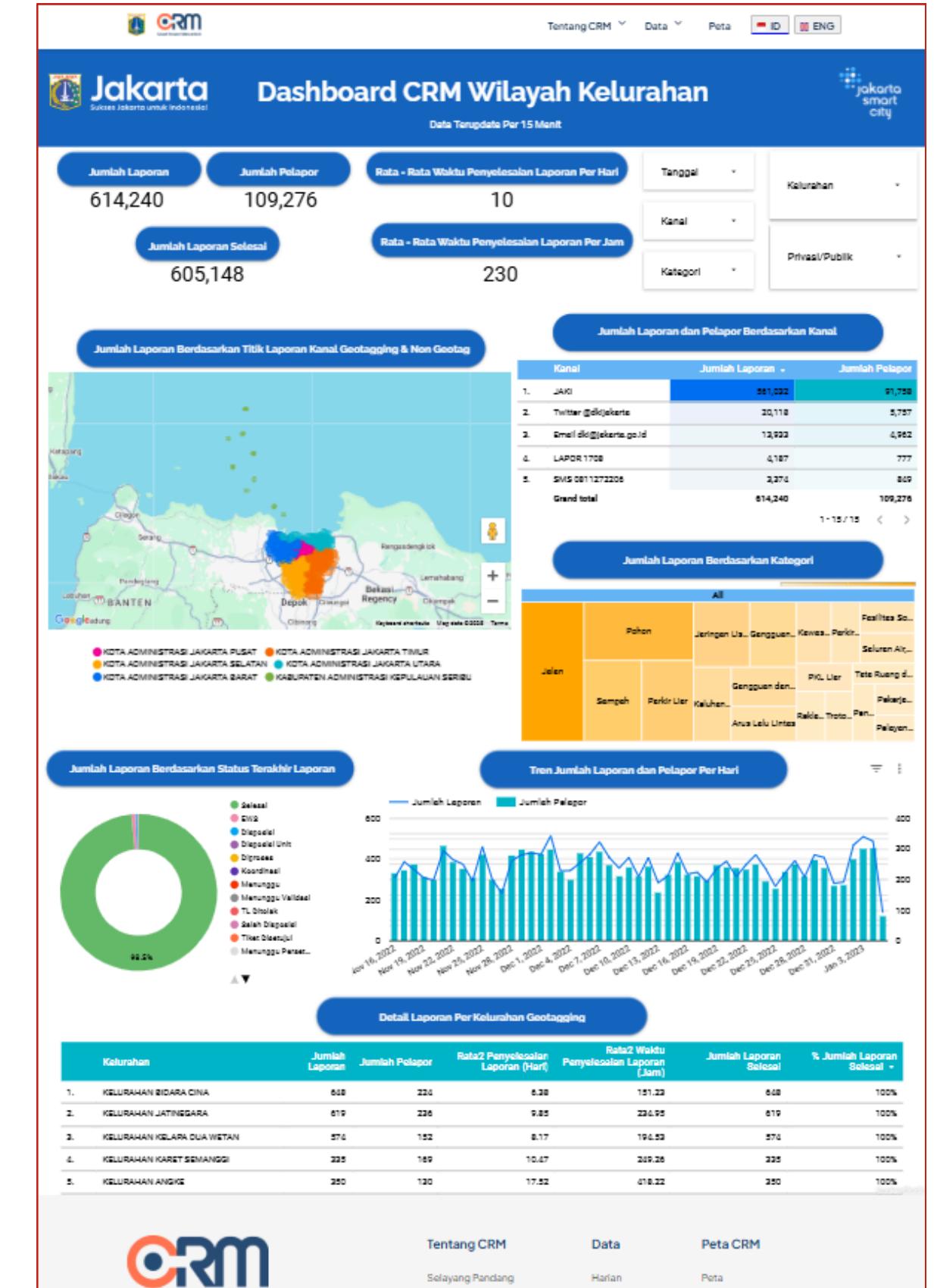


CRM system development journey in facilitating the process of coordinating and resolving citizen reports more efficiently.

As a Data Engineer, I was responsible for database management, data integration, and scheduling data pipelines for daily, monthly, and regional dashboards.

Additionally, I handled data cleansing, mapping, and documentation to ensure data accuracy and accessibility for stakeholders.

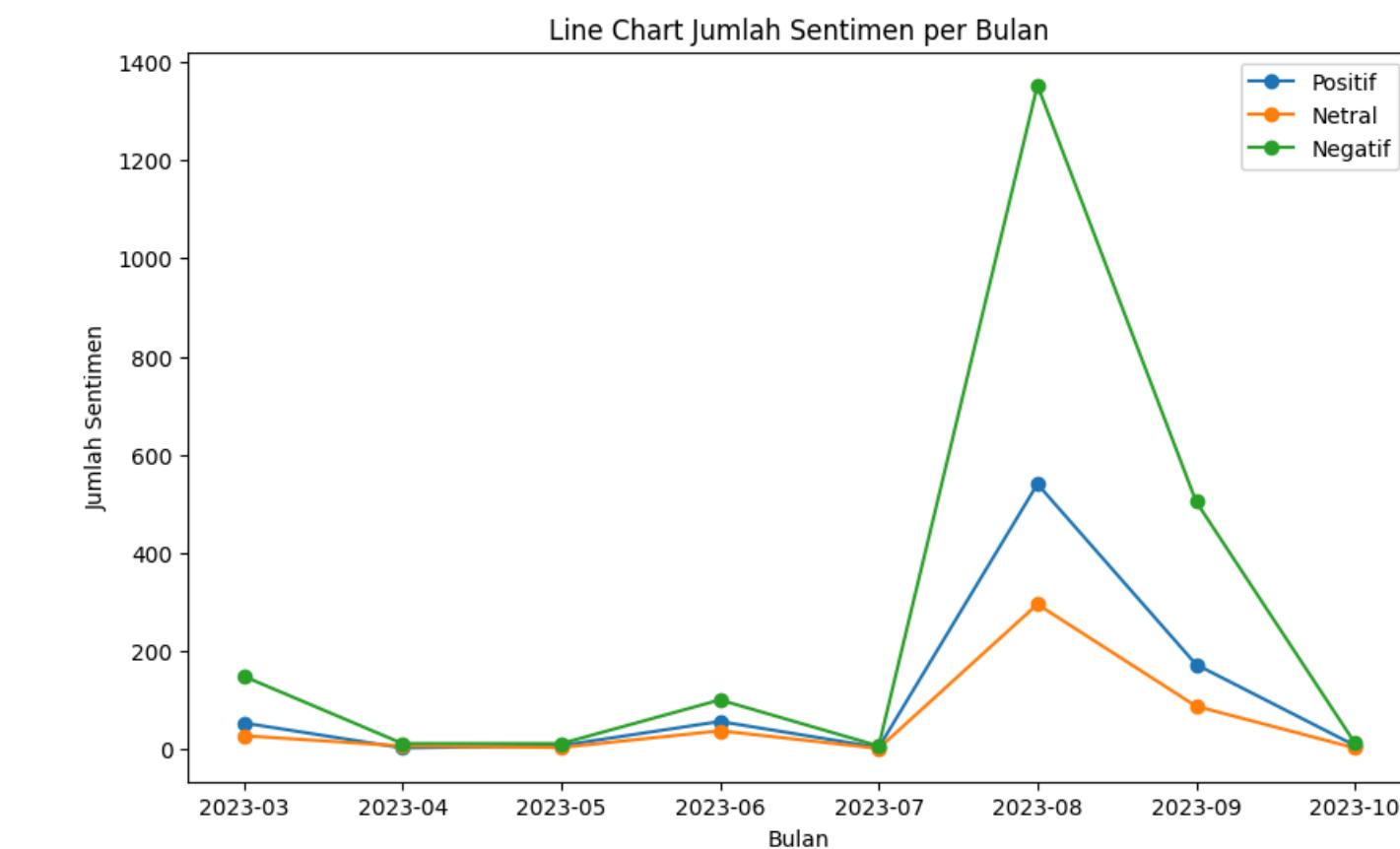
Link : [crm.jakarta.go.id](http://crm.jakarta.go.id)



# SENTIMENT ANALYSIS ON AIR POLLUTION IN JAKARTA

As a Data Engineer, I contributed to this research project, which aimed to analyze public sentiment on air pollution in Jakarta using YouTube comments. The study sought to understand community perceptions and develop an optimal sentiment analysis model. Data from YouTube comments related to air pollution news was collected and analyzed using machine learning and deep learning techniques. Three classification models—CNN, LSTM, and CNN-LSTM—were compared.

<https://ieeexplore.ieee.org/document/10698597>

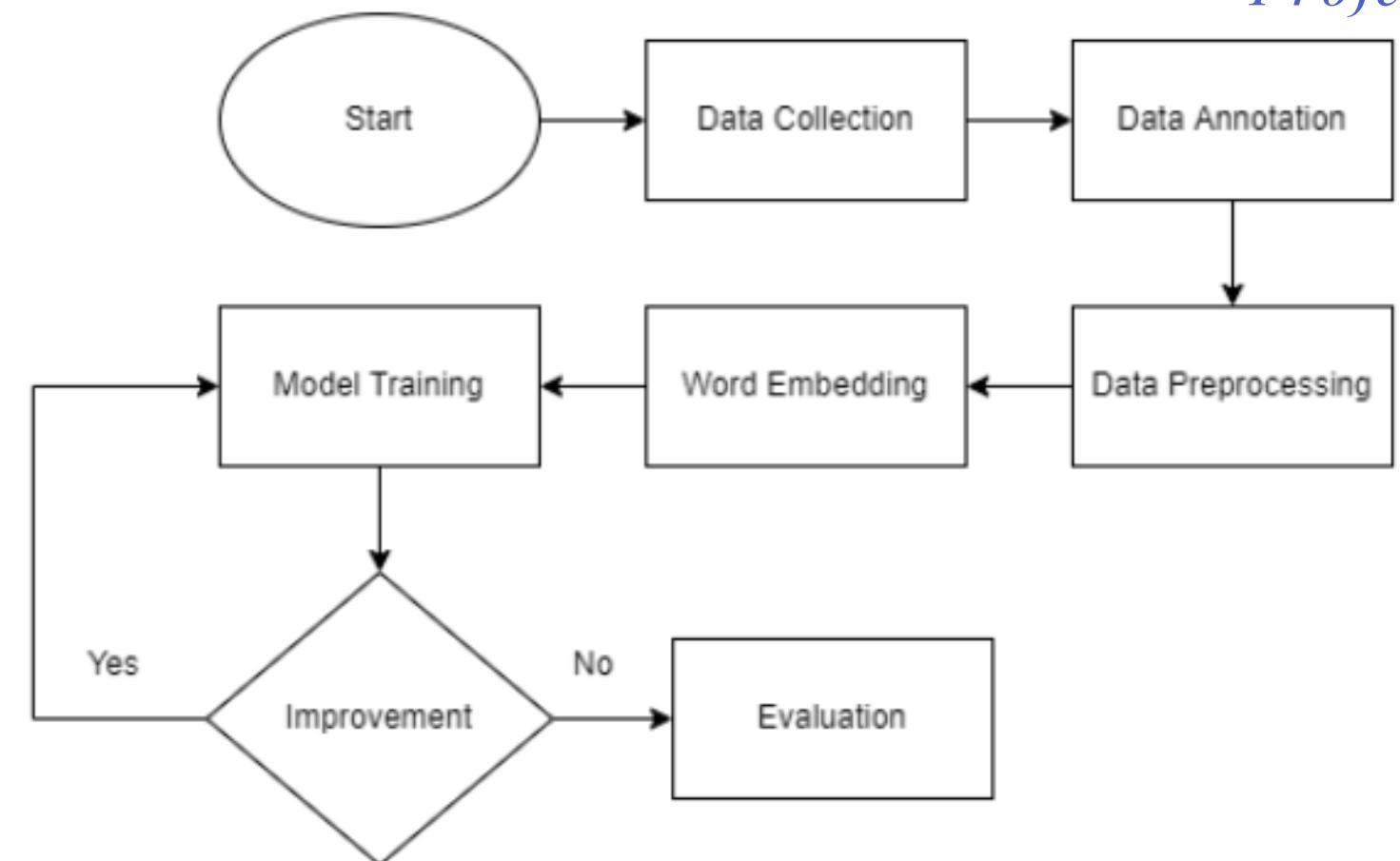


# SENTIMENT ANALYSIS OF JAKI REVIEWS USING DEEP LEARNING MODELS

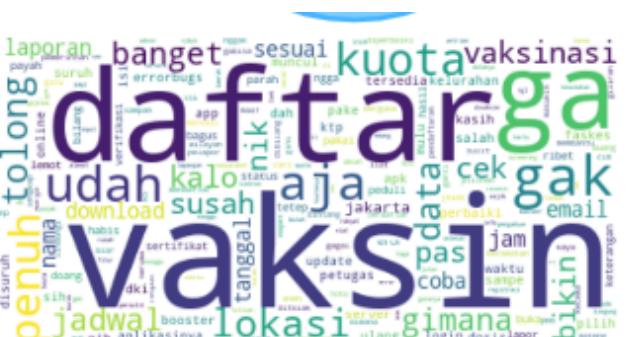
This research aimed to analyze user sentiment toward the JAKI mobile application, developed by the Jakarta Government to enhance public services. Word cloud analysis was conducted to highlight user satisfaction and areas for improvement. Additionally, deep learning models—including LSTM, BiLSTM, GRU, BiGRU, and IndoBERT—were evaluated.

<https://ieeexplore.ieee.org/document/10293572>

Dataset	Weighted Average F-measure				
	LSTM	BiLSTM	GRU	BiGRU	IndoBERT
A	0.7706	0.7648	0.7677	0.7711	0.8022
B	0.47	0.4085	0.4488	0.2856	0.7110
C	0.7474	0.7679	0.7654	0.7743	0.7902
D	0.7733	0.7724	0.748	0.7228	0.8117
E	0.7698	0.7457	0.7441	0.754	0.7885
F	0.8851	0.8724	0.8788	0.8787	0.9296



## Positive Sentiment



## Negative Sentiment



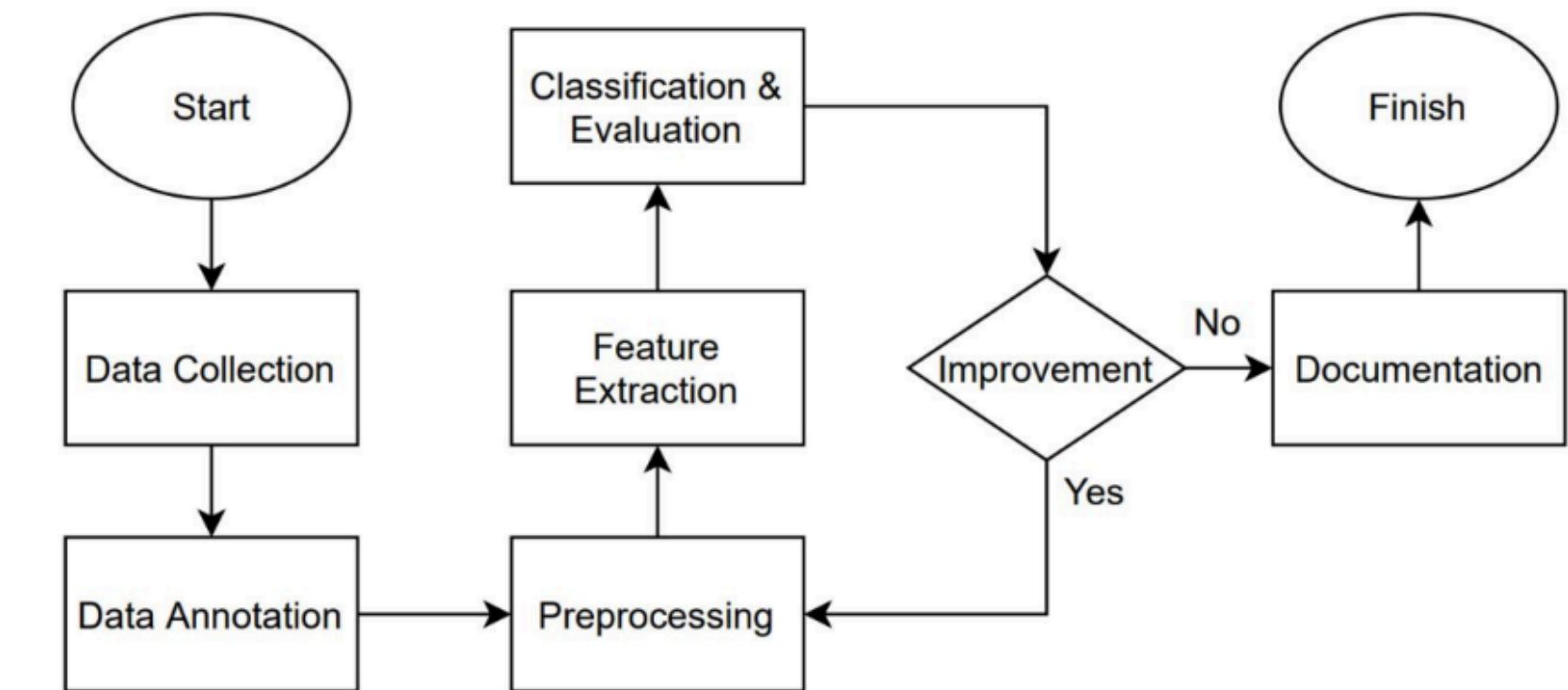
## Neutral Sentiment

# SENTIMENT ANALYSIS OF PPKM POLICIES IN JAKARTA

This research focused on classifying social media comments related to the Level 1-4 PPKM policy in Jakarta using data from Facebook and YouTube. As a Data Engineer, The study compared dataset composition, machine learning models, and feature extraction techniques. Random Forest, Naive Bayes, and Logistic Regression were tested, with Logistic Regression using character quadrigram extraction achieving the highest F-measure score of 79.6%.

<https://ieeexplore.ieee.org/document/9689761>

Model	Imbalance Dataset (%)	Balance Dataset (%)	Balance Dataset with Low DF Removal (%)
Random Forest	51.7	70.8	75.7
Naive Bayes	53.7	68.8	73.0
Logistic Regression	53.7	72.3	76.3



## Sentiment Classification Against the Public Activity Restrictions Policy in Jakarta Using Machine Learning Models

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**LET'S  
WORK  
TOGETHER**

Get in Touch



# Badge and Certification

