

# Elsen Yacub

Software Engineer



## S U M M A R Y

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A Backend focused Software Engineer with experience across Frontend, Backend, and Infrastructure. With more than 4 years of experience working in multiple big tech companies such as **TikTok Tokopedia**, I have contributed in building robust apps and services, contributed in cost saving initiatives, and also improving multiple teams' efficiency by creating impactful automation tools

## E X P E R I E N C E

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### Synapsis.id

April 2025 - Present

Middle Backend Engineer

Synapsis is a SaaS company and also the exclusive IT consultant for one of the **Top 5** mining contractor in Indonesia, as a Backend Engineer here, I am responsible in developing REST APIs and MQTT services for IoT Web Application using Go, gRPC, Kafka, PostgreSQL, MongoDB, QuestDB, WebSocket, Redis, Grafana

Noteworthy contributions :

- Refactored and fixed inefficient services by implementing efficient query and concurrency cleanup strategy, which **reduced memory usage by 97.4%** and eliminated service crashing problem
- Identified and fixed a long-existing, critical intermittent bug that caused most services not gracefully shut down which in turn fixed occurring data inconsistency issue
- Developed highly scalable Sensor Health Check and Automation system that is implemented to at least **12,000+ sensors** at the time of creation. This system improves productivity significantly by eliminating Firmware team's manual sensor configuration and health checking
- Initiated database-level checking technique using Generated Column to safely execute DML Operations resulting in higher data integrity since the checking was only implemented on application level
- Successfully migrated ~200k row data from MSSQL to PostgreSQL for "system modernization" initiative

### TikTok Tokopedia

March 2022 - August 2025

Backend Software Engineer

TikTok Tokopedia is one of the **Largest E-Commerce** in Indonesia, having **~140 Million Monthly Active Users**, as a Backend Engineer here, I am responsible in developing database related Automations and maintaining Database & Redis day-to-day activity using : Go, Ansible, Redis, REST API, PostgreSQL, MySQL, Jenkins, Grafana, NewRelic

Noteworthy contributions :

- Contributed in Redis downscaling initiative, which saved Tokopedia around **~\$7,506 / month** in Q4 22.
- Developed "Postgres Request Automation" to automate DDL Requests across all Tokopedia's database which contributes significantly in engineer's productivity since DDL Requests were manually checked and executed
- Developed "Data Deletion Framework" to automate the deletion of old data in PostgreSQL Database which contributes to the engineer's productivity because before it was a tedious, semi automated task
- Developed "Groot" an automation that collects and simplifies metrics collected from system and send it to monitoring apps such as Grafana or New Relic which improves engineer's productivity by not needing to implement separate metrics collector
- Migrated existing automations to ByteHouse environment (cloud service owned by ByteDance)

### Itemku.com

March 2021 - March 2022

Software Engineer

Itemku is the **Largest C2C digital goods focused** E-Commerce with **6.5 Millions Monthly Visits**, as a Software Engineer here, I developed the Frontend and Backend of itemku.com using Next JS and Express JS and making test automations with Cypress

Noteworthy contributions :

- Developed credit card payment system which **enables prospective overseas users** to perform transaction at Itemku.com
- Created integration and end-to-end testing across Itemku codebase
- Developed the backend and frontend of itemku seller page

# Astra Graphia Information Technology

Frontend Engineer Intern

March 2020 - March 2021

Astra Graphia Information Technology (AGIT) is an IT Company under one of the **Largest conglomeration group (Astra)**, as a Frontend Engineer here, I am responsible in developing a new Web Application while maintaining the old version using JavaScript, ReactJS, AngularJS, Material UI, and Redux

Noteworthy contributions :

- Initiated the creation of **auto-scaling dashboard**, which automatically scale and fill a new item that is created to the dashboard
- Developed a new dashboard system for "UI Modernization" initiative, while also maintained the old dashboard system

## EDUCATION

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### Bina Nusantara University (BINUS)

August 2017 - March 2021

Computer Science - Bachelor's Degree

GPA 3.66/4.00 (Completed the study in 3.5 years)

## SKILLS

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Golang	REST API
gRPC	Kafka
JavaScript	MQTT
WebSocket	Redis
Java	PHP
PostgreSQL / MySQL	Ansible
Node.js / Express.js	Grafana / New Relic
QuestDB	Docker
FastAPI	React.js / Next.js
PL/SQL (Oracle)	Jenkins

## LANGUAGE

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Indonesian - Native

English - Fluent

Mandarin - Beginner