

Elsen Yacub

Software Engineer

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Jakarta, Indonesia

S U M M A R Y

A Backend focused Software Engineer with various experiences, from backend to frontend to infrastructure. With **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

Synapsis.id ↗

Middle Backend Engineer

04/2025 - Present

Synapsis is a SaaS company and also the exclusive IT consultant for one of the **BIG 5** mining contractor in Indonesia, as a Backend Engineer here, I am responsible in Developing REST API 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 99%** and eliminated service crashing problem
- Identified and fixed a long existing intermittent crucial bug that caused most services not gracefully shut down which fixed occurring data inconsistency issue and fixed service auto-restart mechanism
- Developed highly scalable Sensor Healthcheck 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 DB Level checking technique using Generated Column to safely execute DML operations on tables with soft delete feature, 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 ↗

Backend Software Engineer

03/2022 - 08/2024

TikTok Tokopedia is one of the **Biggest 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 was manually checked and executed
- Developed "Data Deletion Framework" to automate the deletion of old data in PostgreSQL Database which contribute 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 Bytecloud environment (cloud service owned by Bytedance)

Itemku.com ↗

Software Engineer

03/2021 - 03/2022

Itemku is the biggest 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 automated tests with Cypress

Noteworthy contributions :

- Developed credit card payment system (before there was no credit card payment option)
- Part of the testing team, who create integration and end-to-end testing across itemku codebase
- Developed the backend and frontend of itemku seller page

Astra Graphia Information Technology ↗

03/2020 - 03/2021

Frontend Engineer Intern

Astra Graphia Information Technology (AGIT) is an IT Company under one of the biggest 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, Redux

- Initiated the creation of "auto-scaling" dashboard, which auto-scale and auto-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

Bina Nusantara University (BINUS) ↗

08/2017 - 03/2021

Computer Science - Bachelor's Degree

GPA 3.66/4.00 (Completed the study in 3,5 years)

SKILLS

REST API	Golang
gRPC	Javascript
Websocket	Java
PostgreSQL / MySQL	Node / Express JS
QuestDB	FastAPI
PL/SQL (Oracle)	Kafka
MQTT	Redis
PHP	Ansible
Grafana / NewRelic	Docker
React / NextJS	Jenkins