

# Elsen Yacub

Software Engineer

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Jakarta, Indonesia

## SUMMARY

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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 automations tools.

## EXPERIENCE

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### Middle Backend Engineer

04/2025 - Present

Synapsis.id ↗

Developed REST API and MQTT services for IOT Web Application using Go, GRPC, Kafka, PostgreSQL, MongoDB, QuestDB, Websocket, Redis, Grafana

Noteworthy contributions :

- Identified and fixed an intermittent crucial bug that caused most services not gracefully shutdown which in turn, also fixed data inconsistencies issue
- Refactored and fixing inefficient services by implementing efficient query and concurrency cleanup strategy, which reduce memory usage by 99% and eliminates service crashing problem
- Developed Highly Scalable Sensor Healthcheck and Automation system that is implemented to atleast 12.000+ sensors at the time of creation. This system eliminates Firmware team's manual sensor configuration and health checking
- Successfully Migrated ~200k row data from MSSQL to PostgreSQL for "system modernization" initiative

### Backend Software Engineer

03/2022 - 08/2024

TikTok Tokopedia ↗

Developed Automations to automate and maintain Database & Redis related day to day activity using : Go, Ansible, Redis, REST API, PostgreSQL, MySQL, Jenkins, Grafana, NewRelic

Noteworthy contributions :

#### 1. Part of Redis Team

- Contributed in Redis downscaling initiative, which save Tokopedia around ~\$7,506 / month in Q4 '22.
- The main team who handle Redis activities in Tokopedia, such as Data migration, Feature improvement, and Issue fixing

#### 2. Part of Database team

- Developed "Postgres Request Automation" to automate DDL Requests across all Tokopedia's database which contribute 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 simplify metrics collected from system and send it to monitoring apps such as Grafana or New Relic which make it easy to monitor system's health
- Migrated existing automations to Bytecloud environment (cloud service owned by Bytedance)

### Software Engineer

03/2021 - 03/2022

Itemku.com ↗

Developed 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

## Frontend Engineer Intern

03/2020 - 03/2021

Astra Graphia Information Technology ↗

Developed 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

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### Computer Science

08/2017 - 03/2021

Bina Nusantara University (BINUS) - Bachelor's Degree

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

## SKILLS

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REST API

GRPC

Websocket

PostgreSQL / MySQL

QuestDB

PL/SQL (Oracle)

MQTT

PHP

Grafana / NewRelic

React / NextJS

Go lang

Javascript

Java

Node / Express JS

FAST API

Kafka

Redis

Ansible

Docker

Jenkins