

## - SUMMARY -

An experienced "Software Craftsman" with 18 years of hands-on skills in planning, architecting, crafting, and maintaining various software for a wide range of industries such as: e-Commerce, FinTech, Shipment/Logistics, and Telecommunication. Certified in Enterprise Architecture (TOGAF 9.2), 5 times Co-Founded IT Startup companies and highly experienced in Software Architecture, Enterprise Integration Middleware and Distributed System, Business Process (Workflow) Automation, Reactive System, Stream Processing, Cloud Computing (IaaS, PaaS, SaaS, FaaS), and Infrastructure Automation (IaC).

# - SKILLS -

Backend Development Java, NodeJS (TypeScript, JavaScript), Python, Go (Golang), Swift, C++ Frontend & Fullstack Development ReactJS (NextJS), Django, SpringBoot **Reactive Programming Libraries / Framework(s)** Project Reactor, Spring WebFlux Mobile (IoS) Development Swift, SwiftUI **Databases** PostgreSQL, MySQL, Oracle, MongoDB, DynamoDB, Cassandra, ksqlDB In-Memory Databases (Caching) Redis, Memcached, Hazelcast Message Brokers (MoM) Apache Kafka, RabbitMQ, AWS SNS, AWS SQS **Data Engineering** Apache Airflow, Spark, CDC

# Data Science Arsenal, Machine Learning Libraries / Framework(s)

Numpy, Panda, SciKit Learn, PyTorch

Prompt Engineering, LLM Framework

LangChain, LlamaIndex

## NLP Libraries

SpaCy, NLTK

# Architectures

Microservices, Event-Sourcing, Event-Driven (Reactive), Monolith, Modular / Majestic Monolith, Serverless, Service Mesh

# **Cloud Providers**

Amazon Web Services (AWS), Google Cloud Platform (GCP)

Infrastructure Automation (IaC)

Terraform

# **Containerization & Orchestration Technologies**

Docker, Podman, Kubernetes

## OpenID Connect / IDM

Keycloak, Okta, WSO2

Others

ERP (Odoo)

# - PROFESSIONAL EXPERIENCE -

PropertyGuruGroup Malaysia, KL Software Architect

#### July 2022 - March 2024

Work with global teams across a few countries (Malaysia, Singapore, India, Vietnam, Thailand, & Poland), fully responsible for the entire "polyglot" architecture for all products being created & maintained by the DSS, bundled under a trademark of propertyguruforbusiness.com. As the main Architect for DSS, my primary objective is to ensure that we're building the right product from the business standpoint while also building the product correctly from the engineering standpoint.

### Achievements:

- Defined my own tailor DSS Agile Architecture framework to streamline the engineering process while ensuring we're not skipping any important architecture documents.
- Enhanced the security of one Java legacy application namely Propadvisor (a.k.a. Vantage) through upgraded and refactored the code from Java 8 to the latest LTS version, upgraded Spring that suffered log4j vulnerabilities and other zero-day vulnerabilities to the most recent version contained with all security patches, upgraded Wildfly application server to the most recent stable and safe version, migrating data and application from the existing running instance to a new instance hosted in different location, and slowly switching over the traffic to this particular new instance.

- Authored what so-called as "TrustBook" as part of our DSS department initiative to compress all security implementation best practices that we apply for all DSS products as part of DSS commitment to PropertyGuruGroup as the holding company that is certified with ISO/IEC-27001.
- Proposed, designed, and led the development of audit trail platform for DSS.
- Proposed, designed, and led the development of an anti-account sharing module for DSS.
- Proposed, designed, and led the development of workflow engine for one of DSS proprietary products.
- Introduced Best practices for DSS application on service monitoring and observability.
- Automated the process of building a unified dashboard for each product team tech-metrics by building an integration pipeline to collect all predefined tech metrics.
- Led the infrastructure optimization and migration of DataSenseMap (DSS Map product that is based on ArcGIS and QGIS).
- Developed and Maintained data pipeline (batch and streaming) for Singapore and Malaysian transaction and analytics data to be consumed by the DataSenseMap (ArcGIS).

# Moove.io Netherlands, Amsterdam Principal Software Engineer, Remote – Contract Based –

Being a Champion for Engineering excellence and Architecture at Moove (formerly known as MooveAfrica) which essentially holds the responsibility of guiding the teams and fostering a culture of engineering and architectural excellence. My day-to-day activities would be around business and technical discussion with all business and technical stakeholders, while also being involved within the product design and engineering hands-on (software development) activities.

Last time during my "short-time" with Moove, I was leading a team from Poland and worked on the Moove Driver's app. This particular app has several integrations with different Moove's partners such as Uber, etc with their various data formats that need to be adjusted and standardised in order to work seamlessly with Moove's internal data structure. This is where I came up with my own design idea for building a streaming data pipeline to cater that purpose. I was presenting my IPR (Interested Parties Review) and ADR (Architecture Decision Record) on how to build this particular streaming data pipeline from scratch to the management (from designing the database structure and anti-corruption layer based on the serverless architecture, including the data API layer). I managed to convince them to go with my design. Subsequently, I was leading and working with a few engineers from Poland to build this particular streaming data pipeline to convince them to go with my design. Subsequently, I was leading and working with a few engineers from Poland to build this particular streaming data pipeline and successfully secured our first release before I decided to not continue with the contract.

# Pearl Data Direct UAE, Abu Dhabi Lead Solutions Architect for Lulu International Exchange – Contract Based –

### October 2020 - February 2022

February 2022 - June 2022

### Achievements:

• Managed to convince the engineering and business stakeholders to adopt my suggested new technology recommendations, ideas, and approaches through the

implementation of event-sourcing microservices architecture while designing and developing YO2 from scratch as the primary candidate to replace one of their legacy systems namely YOM.

- Liaised with product managers to identify MVP requirements and clearly defined feature sets into well-scoped user stories in the format of VTFM to ensure its alignment with business vision. I also introduced the team about event-storming for our requirement gathering phase, including on how to apply Scrum within the project.
- Designed and developed a basic framework for our custom event-sourcing system using Java 11, Spring, Kafka (command bus and event bus), and PostgreSQL as both event-sourced and projection databases.
- Gave some training to the engineering team on how to use my created event-sourcing backend framework and also other topics on Java and development best practices such as TDD and IaC.
- Introduced "Threat modelling and analysis" to the team as part of the security development best practices.
- Collaborate with the engineering department and DevSecOps.
- Learn the characteristics of the region and industry in which its located, provide universal demand input for products and solutions.
- Designed and developed an LCM engine with Apache Camel and Java 11. It is an enterprise adapter that connects various enterprise applications. This particular engine also became our main workflow engine that has different business workflow based on various parameters like products and services offered by the Company.
- Designed and developed BRMS system using Drools and Java 11 in conjunction with the aforementioned LCM.
- Proposed and led the implementation of our tailored TOGAF where I was introducing various architecture document templates like RFC, ADR, and Architecture Vision as part of my initiative for agile architecture.

# October 2019 - December 2020

# Janio Singapore, Singapore Senior Software Engineer

JANIO is a Logistic & Supply Chain Company which is also being considered as a Technology Company that provides seamless end-to-end cross border eCommerce logistics solutions to eCommerce businesses.

# Achievements:

- Been trusted to design and develop all backend API services alone from scratch for one of JANIO's products namely HMS (Hub Management System). HMS provides high-performing, mobile friendly technology that easily and inexpensively enables warehouse-like execution in all nodes, no matter how small or complex the facility. Additionally, Our HMS also looks at the Inbound and Outbound process of Shipment, Cargo, and/or Package through a Central Hub Control which is known as Hub Control Tower System.
- Managed to secure the first production release of HMS MVP features within just 1 month.
- First production release is proven to increase the efficiency of package shipment time and custom clearance processes by getting rid of any manual sorting process which initially happened at JANIO's Hub for Singapore.

- Managed to secure around 7 production releases in the subsequent development cycles that are proven to help and improve all operations in all deployed hubs (Singapore, Indonesia, Malaysia, Taiwan, Philippines, Thailand, and HongKong). Essentially HMS was proven to maximise the process efficiency that eventually can maximise JANIO profits by identifying any operational inefficiencies, preventing revenue leakage (through detecting earlier any damage on the shipment package), reducing handling errors, avoiding business SLA failures, etc.
- Took an engineering initiative to design and build an internal audit trail system (heavily based on event-sourcing) for HMS. The audit trail system that I built alone is proven to help me and highly possible for any engineering team to easily detect and find the root-cause of a failure that might occur. This audit trail also helps business stakeholders to learn from our user behaviours.

# G2 Academy Indonesia, Jakarta Part-Time Instructor and Principal Consultant

# August 2018 - May 2020

As a part-time instructor I was teaching various topics which were mostly on the backend architecture and software development best practices for some private and government sectors. I was also working as their Principal Technical Consultant.

# Achievements:

- Built the curriculum structure (syllabus) including the course materials for Java, Golang, and NodeJS courses. In essence, I helped the Founder of G2 in setting up their courses and classes from scratch.
- Managed to secure one of G2 big projects for BRI (Bank Rakyat Indonesia) through some training that we conducted in BRI Corporate University. I brought this BRI project to G2 where we were trusted to lead one of the in-house microservice projects in BRI.
- Designed and introduced my own tailored `clean-code architecture` scaffolding code that is used by G2 in most of their projects.
- Taught the team on how to work with `clean-code architecture` while also applying Gherkin syntax in our test cases to ensure its alignment with the business user stories.

# Automate.id Indonesia, Jakarta VP Engineering, Technical Co-Founder

### January 2018 - December 2019

Automate.id is an AI based startup company which focuses on building an AI-platform to automate day-to-day transactions for various business domains.

I was one of the Technical Co-Founder who designed and built the platform from scratch since the beginning of 2018, and also acted as the VP of Software Engineering.

# Achievements:

- Proposed and designed an e-commerce chatbots platform as one of Automate.id primary product by utilising different preexisting chat platforms such as : WhatsApp, Telegram, Facebook Messenger, and Line through building backend chat adapters for those chat platforms by myself alone (This was my initiative and I was the only engineer work on the chatbot product during that time).
- Designed and built a workflow engine (myself alone) from scratch based on FSM (Finite State Machine) to support different business domains outside eCommerce. My

expectation during that time was to provide the ability for our chat bot to seamlessly work with different business domains (e.g., logistics, ticketing/travel agent, etc). In a nutshell, this particular workflow engine contains different workflow steps to drive user workflow based on its domain (e.g., eCommerce has some steps such as searching a product, adding product into cart, checkout from cart, payment, and product shipment). Furthermore, this particular workflow engine can also be freely customised by our customers according to their needs.

• My chat bot was also equipped with an NLP engine that can grab the user's intent to drive the conversation into the appropriate workflow in my workflow engine.

# - PRIOR POSITION -

### FREELANCE

## Principal Fullstack Engineer

Worked with some prestigious clients (ABM Investama, Trakindo Group, GMF Aeroasia, Telkomsel, Petral Pertamina subsidiary group) to redesign and disentangle most of their legacy monolithic application into small set of independent services (a.k.a. Microservices architecture).

# ABYOR INTERNATIONAL, Jakarta

## Java Principal Engineer

built various adapters and middlewares in Java for interfacing with Finance and HRMS modules in SAP which is proven to increase the cost efficiency for our clients.

### BLIBLI.COM Indonesia, Jakarta

### Senior Java Engineer

Worked in various e-Commerce internal modules for blibli.com such as: VENICE and MTA while also leading the refactoring process of some legacy modules.

# HEWLETT-PACKARD Malaysia, Cyberjaya

### Senior (Lead) Java Developer

Worked on an e-Commerce Platform and middleware called NCIS (formerly known as VIPER).

### VISITEK Indonesia, Jakarta

### IT Consultant (Middleware Specialist)

Worked in one project named "EAI Enhancement" at TELKOMSEL (i.e. one of the biggest GSM carriers in Indonesia).

# CoreSDP, Singapore

### Java EE Developer

Design and develop product called "CoreM2M".

# Hub9, Singapore

### Java EE Developer

Builded an interface application (service/daemon application) to be integrated with Facebook's XMPP Protocol and Yahoo!'s proprietary protocol.

## Microsoft Indonesia, Jakarta Java Developer

built a desktop application named SIMPLIK based on the SWT (Standard Widget Toolkit) that provides a GUI and acts like an internet gateway. SIMPLIK works as a proxy to Microsoft Sharepoint,

# - EDUCATIONS, TRAINING & DEVELOPMENT -

# 2020 - 2021

Data Science and Machine Learning at MIT-IDSS Status: Dropout

# 2021

Enterprise Architecture (TOGAF 9.2) Status: Completed

# 2000 - 2006

Bachelor of Informatics Engineering at Dian Nuswantoro University (<u>https://dinus.ac.id</u>) Status: Completed