

Josep Marcello

— Software Engineer

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Introduction

I'm Josep Marcello, an avid software engineer from Indonesia. I have a keen interest in distributed and parallel systems which leads to me loving building scalable software and systems. Even though my main interest is parallel and distributed systems, I have a large experience in web development, especially in back-end which is used by both web applications and mobile applications. I also have a deep attention to detail to keep code clean and be as resource-optimized as possible.

Working Experience

Software Engineer I (Full time)

Tiket.com | October 2022—now

- Tech stack: Java 8 (and RxJava), Java 11 (and Reactive Java), Maven, Spring, MongoDB, Kibana, Elasticsearch.
- Work with 2 other software engineers, 1 tech lead to improve and maintain all 5 of Tiket.com's accommodation demand post-purchase services.
- Interim PIC of multi-currency feature for accommodation demand post-purchase team.
- Refactor booking API to better prevent double booking.
- Work on other features, bug fixes, and adjustments along with other software engineers, QAs, and product manager.

Back end Engineer (Internship)

Tiket.com | June 2022—October 2022

- Tech stack: Java 8 (and RxJava), Java 11 (and Reactive Java), Maven, Spring, MongoDB, Kibana, Elasticsearch.
- Worked with 3 other software engineers, 1 tech lead to improve and maintain Tiket.com's hotel demand post-purchase team services.
- Initiated error tracing (both on production and staging) and communicate my findings to my lead and coworkers.
- Worked on API adjustments and bug fixes to improve Tiket.com product.

Junior Back end Engineer (Part time)

Kenangan.com | December 2021—June 2022

- Tech stack: Node.js, Fastify.js, MySQL, Sequelize.js
- Worked with 2 other back end engineers and 2 mobile app engineers to create API contracts and adjust existing APIs.
- Developed a new product consisting of social media and e-commerce in 1 application that's very early in the development age.

Laboratory Assistant (Part time)

ITB Distributed System Laboratory | July 2021—now

- Work with 8 other assistants to create tasks and projects for 4 courses revolving around distributed system and low-level programming with around 160 students each.

Data Analyst (Internship)

CoLearn | September 2020—February 2021

- Optimized machine learning algorithm by evaluating over 10,000 pictures from machine learning prediction.
- Helped optimize my team's workflow by creating a Python script to automatically download JSON data from an API and parse it into a CSV file.

Software Engineer (Internship)

Wardaya College | July 2020—August 2020

- Tech stack: Python Flask, MySQL
- Developed a new e-learning platform with 3 other software engineers from scratch.

Skills

Programming languages

Rust, Java, Go, Python, C++, TypeScript, JavaScript, C, C#

Frameworks

Express.js, React.js, Tailwindcss, Svelte.js, Vue.js, Spring Boot, Actix-web

Development tools

SQL Databases, Git, Docker, Redis, InfluxDB, MongoDB, GitHub & GitLab CI/CD

Languages

Indonesian (native), English (fluent)

Projects

Smart Room Conditioner

An IoT app to automatically open/close dorm window/door based on room temperature, humidity, and CO2 PPM. Sensor emits a message every second which processed and saved, then predicted on using machine learning.

Tech stack: Python, PySpark, Vue.js, Platform.io, InfluxDB, Telegraf, Redis, MQTT, Kafka

Simple Message Queue

A specification and implementation of simple message queue.

In the implementation, multiple clients can connect to a queue server to push and pull messages.

Tech stack: Rust

[Pendekin-V2](#)

A link shortener for my student's association (HMIF)

This is a rewriting from Pendekin V1 which uses Google to authenticate users.

Tech stack: Go, Go Fiber, MongoDB, Docker

[More projects](#)

Education

Bandung Institute of Technology—Bandung, Indonesia

Bachelor of Computer (Informatics Engineering)

GPA: 3.56/4.00

Notable finished Courses:

- Web-based Application Development
- Software Project
- Parallel and Distributed System
- Database Management
- Computer Networks
- Distributed Application Development

Final project: Hardware-in-the-loops (HILS) Connector for Autonomous Vehicle Simulation

Organizational Experiences

Head of Technology, Issue, and Exploration (TIE) Department—HMIF ITB

May 2022–May 2023

- Lead and managed 3 divisions under TIE Department.
- Worked with other divisions to provide internal HMIF services and software (Line Bot, Discord Bot, and link shortener).

Tech used: Go, JavaScript/TypeScript, Svelte.js, Python, Docker, Nginx, Google Workspace Suite, GitHub project

Head of Web Development Division—Parade Wisuda Juli 2021 ITB

May 2021–July 2021

- Lead 12 software engineers to create the website's design, front-end, and back-end.
- Setup CI/CD pipeline and deployment server.
- Tech stack: TypeScript, Express.js, Sequelize.js, React.js, SCSS, MariaDB, GitHub CI/CD, Docker

Achievements

- Finalist at Bina Nusantara Cyber Security Community (Binus CSC) National Cyber Week, Cyber Arena CTF Competition.
- Finalist at UGM JOINTS 2021 CTF Competition.
- Participant at TechnoScape 2021 Hackathon Competition.