# **Gerald Bendryandre Sihotang**

## Software Engineer | Backend Engineer

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#### **Profile**

Experienced backend engineer skilled in building scalable applications, streamlining deployment processes, and ensuring quality assurance. Proficient in mastering new technologies and delivering reliable solutions across development, staging, and production environments.

#### **Education**

2016 - 2020

Bachelor of Applied Science in Software Engineering

North Sumatera.

Institut Teknologi Del 🛽

Indonesia

A bachelor program that aims to provide a learning process that fosters high reasoning skills, creativity, and abilities that can be communicated and applied in various fields of

#### Skills

Databases (SQL, NoSQL)

Programming Languages (Go, C++, Javascript)

Tools (Git, Grafana)

## Languages

• English

• Bahasa Indonesia

## **Professional Experience**

2023/01 - present Jakarta, Indonesia

## **Engineering Infrastructure - Network Operation Center Engineer**

Sea Labs Indonesia 🖸

- Provide essential monitoring and troubleshooting for Shopee's services using Grafana and custom scripts, escalating critical issues.
- Conducted root cause analysis on critical system issues, leading to a 15% reduction in recurring incidents through targeted improvement plans.
- Developed automation scripts in Python, Go, and ReactJS, reducing manual interventions by 30% and improving NOC response times by 30%.
- Coordinated server troubleshooting for NIC, memory, and disk issues by liaising between data center engineers and business units, ensuring timely issue resolution and system reliability.

Tech stack: Go, Python, ReactJS, MySQL, Grafana

2022/07 - 2023/01 Jakarta, Indonesia

## Junior Fullstack Engineer

Sea - Shopee 🖸

- Completed a six-month structured training program focused on software engineering fundamentals, mastering best practices with Golang and React S.
- Developed a full-stack web application using ReactJS and TypeScript for frontend and Golang for backend.

Tech stack: Go, Javascript, Typescript, ReactJS, PostgreSQL, MySQL, Redis

2021/06 - 2021/09 Indonesia

#### Junior Software Engineer

Pinhome 🖸

- Engineered and optimized Pinhome's backend by refactoring APIs and optimizing database queries, improving service reliability by 20%.
- Contributed to the migration of Pinhome's service from semi-monolith to microservices by developing key backend services, improving scalability and performance.
- Designed and implemented a database migration script, streamlining the transition to microservices and improving system performance.
- Created comprehensive unit tests, achieving ~98% code coverage using Go testing frameworks, significantly reducing production bugs and improving QA.
- Refactored Pinhome's service to clean code.

Tech stack: Go, PostgreSQL, Grafana, Retool

2020/10 - 2021/05 Indonesia

## **Software Engineer**

Transfree [7]

- Designed, built, and improved Transfree's admin service, reducing response time by 40% and improving user experience.
- Integrated third-party services (WhatsApp OTP, Email OTP, Digital Wallet), enhancing the system's authentication process.

Tech stack: Javascript, MongoDB

2020/06 – 2020/07 Kabanjahe, Indonesia

## Fullstack Engineer - Intern

PT. PLN (Persero)

- Developed a backend service using Go and PostgreSQL to monitor PLN's payment systems in Karo, North Sumatera.
- Developed an Android mobile app in Java for employee monitoring, enhancing management's ability to track attendance and performance metrics.

Tech stack: Go, Java, Android, PostgreSQL

2019/06 – 2019/09 Jakarta, Indonesia

#### **Software Engineer - Intern**

Tokopedia 🗷

- Developed, enhanced, and bug-fixed a highly-concurrent distributed system for TokoPoints services, improving system capacity by 25%.
- Collaborated with software engineers, business development, and product managers to design and deliver TokoPoints features, resulting in a 15% increase in user engagement.

Tech stack: Go, Javascript, PostgreSQL, Redis, GraphQL, Grafana, NSQ, gRPC

#### **Awards**

#### 2019/06 Fina

## **Finalist Competitive Programming**

ICPC Ideafuse 2019

- Team based with 3 members.
- Achieved finalist status in ICPC Ideafuse 2019, demonstrating exceptional problem solving skills and algorithmic thinking.
- Competed among top programmers from ~40 teams around Indonesian universities.
- Enhanced teamwork and collaboration skills by participating in team-based coding challenges.

#### 2018/02

#### **Finalist Competitive Programming**

ITFest USU 2018

- Team based with 3 members.
- Became the top 10 rank list.
- $\bullet$  Competed among top programmers from ~20 teams around Indonesian universities.

## 2017/05

## **Finalist Competitive Programming**

IToba Fest 2017

- Individual competitor-based.
- Competed among the top programmers among 30 college students around Indonesian universities.

## 2017/11

## **Finalist National Seminar**

Seminar Nasional Teknologi Informasi dan Komunikasi di Daerah Rural (SNaTIKRa)

- Team based with 3 members.
- Provided an idea to solve problems in rural areas in North Sumatera in the tourism sector.

## 2017/02

## **Finalist Competitive Programming**

ITFest USU 2017

- Individual competitor-based.
- Became the top 10 rank list.
- Competed among the top programmers among 20 college students around Indonesian universities.