

Mochamad Dandy Firmansyah

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Results-driven Solution Architect Manager with 12+ years of experience in consulting, mining & EPC, banking, finance and HRIS. Skilled in designing scalable microservices, CI/CD pipelines, and leading digital transformations. Proficient in Java, Golang, Python, Node.JS and cloud platforms. Proven track record in manpower management, enhancing application performance, cost reduction and managing high volume transactions. Strong collaborator delivering high quality, efficient and secure application for enterprise.

EDUCATION

University of Stuttgart, Germany

Master of Science, Information Technology (GPA: 2.7 / 1.0)

Stuttgart, Germany

Graduation Year: 2017

University of Indonesia, Jakarta

Bachelor of Engineering, Electrical Engineering (GPA: 3.49 / 4.0)

Jakarta, Indonesia

Graduation Year: 2010

WORK EXPERIENCE

Petrosea (Mining Contractor, Engineering Procurement & Construction)

Jakarta, Indonesia

Solution Architect Manager

April 2020 - Present

- Architected and implemented scalable microservices, predominately utilizing **Golang** and **PostgreSQL**
- Managed 7 people for Development & DevSecOps team and 4 people for Data team.
- Initiated Software as a Service (SaaS) namely Minerva Platform for monitoring mining operational system and the predictive use cases utilizing machine learning and advance analytics, increasing company's production by 30%.
- Chopped the development team deployment works by 38% through implementing DevSecOps and automation using Azure DevOps, Azure Logic Apps, Gitlab CI, Jenkins, Snyk and SonarQube.
- Led the migration of company's infrastructure to cloud, resulting in 40% of improvement in system performance and 35% reduction in operational cost.
- Applied Generative AI using Azure OpenAI for use cases in applications for Safety Health and Environment (SHE) and Engineering Procurement & Construction (EPC).

Mitrais (IT Consultant, Software Development and IT Services)

Jakarta, Indonesia

Senior Software Engineer

December 2018 – March 2020

- Guided team of 5 people building marketing & cash management apps for client of a banking industry.
- Developed mobile app using **Java Android** & **Java Springboot** backend for banking cash management operation on remote area and agent performance dashboard, minimizing agent's administrative works by more than 40%.
- Maximized backend performance by performing GC tuning, database query enhancement, etc.
- Upgraded the mobile application system stability by tracking Application Profiler, such as Trepn and Android Mobile Profiler; knock down APK size to 12 MB and RAM usage to 50 MB.

German Aerospace Center (Aerospace, Energy & Research Center)

Stuttgart, Germany

Research Assistant

November 2017 – October 2018

- Engineered several new functions on Heliostat Control Tower Software for Heliostat tower calibration & simple prediction system.
- Enforced encryption system using public-private key to enhance security by 2x on connections between backend and frontend system.
- Optimized backend performance and rising its speed 3x by upgrading Java version, executing GC adjustment, database query enhancement, memory consumption decrement, etc.
- Overhauled the obsolete legacy source code on Java 6 to Java 8 of the production application of Heliostat Control Tower, resulting in increased usability and reduced run time performance by 15%.

Gunatronikatama Cipta (GASI) (HRIS, Payroll Services & Finance)

Jakarta, Indonesia

Software Developer

January 2011 – September 2015

- Developed new functions on client's Financial Information System namely OFIS, including Customer Registration, IRR Calculation, Contract Document, Purchase Order, Billing Letter, etc.
- Engineered new functions on the company's Software for Payroll Outsourcing namely GPS (Gasi Payroll System), including Leave and Absenteeism, Payroll, Salary Change, Reporting Services, etc. These ensure the work of the payroll's service officers to boost 70% due to reducing manual and administrative works.
- Optimized Web Apps on JavaEE performance by 15% at leveraging database connection adjustment, optimize query, GC tuning, etc.

TECHNICAL SKILLS

- **Coding Languages:** Golang, Gofiber, Java Springboot, Python, Node.JS, React.JS, Vue.JS, React Native
- **Databases:** PostgreSQL, SQL Server, MySQL, SQLite, MongoDB, Cassandra, CosmosDB
- **Tools & Platforms:** Github, Gitlab, Azure DevOps, Jenkins, ELK Stack, Grafana, Loki, Prometheus
- **Operating Systems:** Linux (Alpine, Ubuntu, Kali, CentOS), Windows & MacOS
- **Cloud Platforms:** Microsoft Azure, Google Cloud Platform (GCP) and Amazon (AWS)
- **Others:** Docker, Kubernetes, Redis, Memcached, OIDC, JWT, NATS, RabbitMQ, MQTT

LANGUAGES

- Indonesia – Native
- English – Advance (EnglishScore CEFR C1)
- German – Professional (Goethe Zertifikat B1)

CERTIFICATIONS & TRAININGS

- 2023: Microsoft Certified: Azure Administrator Associate
- 2023: The Linux Foundation - Kubernetes and Cloud Native Associate
- 2022: EC-Council – Certified Secure Computer User
- 2021: Microsoft Certified: Azure Fundamentals
- 2021: Microsoft Certified: Azure Data Fundamentals
- 2021: Microsoft Certified: Azure AI Fundamentals
- 2021: EnglishScore: CEFR C1 – British Council
- 2021: Coursera: Cloud Engineering with Google Cloud Specialization
- 2020: Cyber Security Awareness Essential – SANS Academy
- 2020: Supervisor Development Program – Petrosea Academy
- 2015: IELTS – British Council
- 2014: German Language B1 – Goethe Institute
- 2013: Basic Java Programming Training – PT. GASI
- 2012: IBM AS 400 Training – PT. GASI

PUBLICATIONS

- **GaaS: Adaptive Cross-Platform Gateway for IoT Applications** (Oct, 2 2019 published on IEEE MASS 2019, Monterrey, CA, USA) → [Link](#)
- **Comparing Data Management Technologies on FSDM enabled RDBMS: A Study Literature** (Apr 27, 2018 issued on SSRN for ICONIC 2018, Hanover, Germany) → [Link](#)
- **Near-field to Far-field Transformation of Cylindrical Scanning Antenna Measurement using Two Dimension Fast-Fourier Transform** (Jul 27, 2017 brought out on IEEE International Symposium on Electrical and Computer Engineering 2017) → [Link](#)
- **Developments of Low-Cost Probe Compensated Cylindrical Near Field Measurement for Antenna Radiation** (Mar 20, 2011 emanated on Progress in Electromagnetic Research Symposium (PIERS) Proceedings, Marrakesh, Morocco) → [Link](#)

SOFT SKILLS

- **Communication:** Strong verbal & written communication, active listening and presentation skills.
- **Leadership:** Team management, mentoring and coaching juniors, task delegation.
- **Teamwork:** Cross-functional teamwork, cooperative attitude and conflict handling.
- **Time Management:** priority management, scheduling and deadline handling.
- **Interpersonal:** negotiation, networking and relationship building.