AKHSAN DAFFA ATSILLA PASHA
DevOps Engineer

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DevOps Engineer with a strong foundation in infrastructure automation, container orchestration, and high-performance data pipelines. Currently expanding expertise in Cloud Infrastructure (AWS) using Terraform for automated provisioning. Proficient in building robust CI/CD workflows using Jenkins and GitHub Actions, and managing microservices architectures with Kubernetes (K8s) and Docker. Experienced in implementing observability stacks (Prometheus/Grafana) and real-time data streaming solutions (Apache Kafka/StarRocks). Adept at bridging the gap between backend development (Golang/Python) and operational stability to ensure seamless deployments and high availability.

Experience

PT Nusapala Berkah Autonomous — *Jakarta, Indonesia*
Backend DevOps — *Jul 2025 - Jan 2026*

Container Orchestration & Microservices: Designed and deployed scalable microservices architectures using Kubernetes (K8s) and Docker Compose. Implemented Ingress Controllers (Ngix) and Horizontal Pod Autoscalers (HPA) to manage traffic distribution and dynamic load scaling.

CI/CD Pipeline Automation: Engineered automated deployment pipelines using Jenkins (Docker-in-Docker) and Github Actions. Integrated Webhooks and Ngrok tunneling to trigger automated builds, testing, and deployments from version control systems.

Infrastructure as Code & Configuration: Utilized Ansible and Bash Scripting to automate server provisioning and configuration management on Linux VPS environments, ensuring consistent environments across development and production.

Observability & Monitoring: Deployed a full monitoring stack using Prometheus, Grafana, and Node-Exporter. Configured custom dashboards and real-time alerting systems via Discord Webhooks to proactively detect system anomalies and resource bottlenecks.

Data Engineering & Streaming: Built real-time Change Data Capture (CDC) pipelines using Apache Kafka, Debezium, and StarRocks to synchronize high-volume data between MySQL and analytical databases with minimal latency.

Security & Disaster Recovery: Implemented automated backup strategies using Rclone and Cron Jobs for database disaster recovery to Cloud Storage (Google Drive). Secured web services using SSL/TLS (Let's Encrypt/Certbot) and managed firewall configurations.

PT Metafora Indonesia Teknologi — *Yogyakarta, Indonesia*
IoT Engineer — *Mar 2023 - Jul 2023*

IoT Infrastructure & Data Pipeline: Architected a real-time data streaming system using Node.js and Socket.IO, handling high-concurrency data ingestion from ESP32 devices to Firebase Cloud Database.

Cloud Integration & Security: Implemented automated token management for secure device authentication and robust CSV data logging mechanisms for historical data auditing and analytics.

Protocol Implementation: Engineered reliable communication layers ensuring data consistency and parsing efficiency for industrial equipment integration, bridging the gap between edge devices and cloud servers.

System Optimization: Optimized data transmission latency by implementing efficient payload structures and real-time synchronization logic, ensuring sub-second response times for monitoring dashboards.

Projects

AWS Hybrid Cloud Image Processor — *Feb 2026*
Built event-driven image processing system using AWS EC2, S3, SQS, and Raspberry Pi; automated AWS infrastructure with Terraform and deployed containerized applications via Docker Compose, enabling scalable hybrid cloud processing. [link].

Edge IoT Kubernetes Telemetry & CI/CD Pipeline — *Feb 2026*
Migrated legacy Go-based IoT architecture to an Edge Kubernetes (K3s) cluster on Raspberry Pi using Helm; engineered multi-arch CI/CD (GitHub Actions) and implemented enterprise observability via Prometheus & Grafana. [link].

Server Monitoring Performance Optimization — *Feb 2026*
Engineered a high-performance monitoring system migration from Python to Go, achieving 14.5x memory efficiency and 36% performance improvement through 72-hour stress testing and automated benchmarking infrastructure, reducing infrastructure costs by 93% while validating production readiness [link].

Hospital Parking Analytics Modernization *Jan 2026*

Engineered a high-performance analytics architecture separating OLTP (parking transactions) from OLAP (analytics) workloads, eliminating system failures and improving query response times for hospital parking data [link].

Raspberry Pi Infrastructure Migration & Complete Service Recovery *Jan 2026*

Successfully migrated complete infrastructure from 16GB to 128GB achieving 100% service recovery for Jenkins CI/CD, Cloudflare Tunnel, and Tailscale VPN; resolved Docker permission conflicts and container authentication issues using Ansible automation [link].

Enterprise Jenkins DevSecOps Pipeline Automation *Jan 2026*

Engineered high-performance Jenkins CI/CD pipeline with Docker Compose orchestration on Ubuntu Server, implementing automated security vulnerability scanning and hardware resource optimization for edge computing infrastructure (ARM64) [link].

IoT Mobile Robot Navigation System for Line Following Oct *2023 - April 2024*

Built an IoT solution enabling robot to follow black lines on white tiles using Raspberry Pi, ESP32, and computer vision, achieving real-time processing with PID-controlled motor navigation [link].

Education

Universitas Negeri Yogyakarta *Yogyakarta, Indonesia*
Bachelor of Electronics Engineering GPA: 3.82 / 4.00 *2020 – 2024*

Certificate

- **Industrial IoT & Automation ▪ ID-Networkers** *Mei 2025*
  Key Skills: IoT Gateway Configuration, Modbus TCP/IP Data Protocols, Cloud Integration, and Real-time System Monitoring (SCADA).
- **Linux Server Administration & Web Hosting Specialist ▪ ID-Networkers** *April 2025*
  Key Skills: Linux Command Line (CLI), VPS Management, Web Server Deployment, and Self-Hosted Server Configuration.

Additional Information

- **Technical Skill**
  a. **Container & Orchestration:** Kubernetes (K8s), Docker, Docker Compose, Helm Charts
  b. **CI/CD & Tools:** Jenkins, GitHub Actions, Ansible
  c. **Cloud & Infrastructure:** AWS (EC2, Security Groups), Terraform (IaC), VPS Management, Ansible
  d. **Monitoring & Observability:** Prometheus, Grafana, Node Exporter
  e. **Database & Streaming:** PostgresSQL, MySQL, Apache Kafka, StarRocks
  f. **Programming:** Golang, Python (Scripting & Automation), SQL
  g. **Networking & Security:** TCP/IP, DNS, HTTPS (SSL/TLS), Firewall Management, Nginx.
- **Personal Skill:** Critical Thinking, Infrastructure Troubleshooting, System Optimization, Research & Development (R&D)