

Dhia Eddine Gharsallaoui

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SUMMARY

Distributed Platform Architect with 3 years of experience, combining architectural design with hands-on implementation. Architect and develop cloud-native solutions including microservices, Kubernetes infrastructure, and distributed data processing platforms. Specialized in building real-time data pipelines using Apache Spark, Delta Lake, and event streaming with Apache Kafka. Design and implement blockchain protocols and cross-chain bridges. Strong focus on end-to-end delivery, from system design to production deployment, with expertise in infrastructure automation and observability. Active contributor to open-source projects in data engineering and system integration.

EXPERIENCE

Solution Architect

SkilId | February 2022 - Present | Paris, France

- Designed and developed scalable microservices using Golang, implementing domain-driven design principles.
- Designed and maintained a multi-cluster Kubernetes infrastructure spanning development, staging, and production environments, implementing helm charts for automated application deployment.
- Engineered a robust monitoring and observability stack using Prometheus, Grafana, and Elasticsearch, creating custom dashboards and alerts for comprehensive system monitoring.
- Implemented distributed tracing system using OpenTelemetry (OTEL) for end-to-end visibility across microservices, improving troubleshooting capabilities and performance optimization.
- Developed and optimized stream processing pipelines using Apache Spark and Delta Lake, achieving near real-time data processing with implemented data quality checks.
- Contributed to infrastructure automation on bare metal servers using Ansible, supporting configuration and deployment of distributed applications.
- Designed and deployed a scalable event-driven architecture using Apache Kafka, NATS, and Redis, enabling real-time event processing with sub-second latency.
- Contributed to centralized logging architecture using Graylog and Elasticsearch with custom parsing and alerting rules.
- Implemented comprehensive security layer with SSO integration using Ory ecosystem, managing authentication and authorization across multiple applications.
- Contributed to CI/CD pipeline development using GitLab CI.

Freelance Blockchain Developer

ChainsAtlas | March 2024 - Present

- Developed and optimized multi-chain bridge protocols integrating EVM-compatible chains with XRPL, implementing secure cross-chain asset transfers and NFT operations for enhanced interoperability.
- Architected and implemented battle reward systems with multi-signature validation for blockchain gaming, incorporating XRP and NFT reward distribution mechanisms.
- Built robust transaction processing systems with retry logic and nonce management, achieving improved transaction reliability across multiple blockchain networks.
- Designed and implemented agnostic blockchain operations involving smart contracts in Solidity and TypeScript, with a focus on secure multi-signature wallet functionalities.
- Enhanced blockchain bridging infrastructure by developing verifier and guardian systems, implementing secure validation protocols for cross-chain operations.

Freelance Software Engineer

idatase GmbH | January 2024 - March 2024 | Remote

- Developed scalable data ingestion pipeline using Python/Flask and PostgreSQL.
- Implemented containerized microservices architecture using Docker Compose and Kubernetes.
- Created automated testing and deployment pipeline using GitHub Actions.
- Designed and implemented real-time metrics collection system.

SKILLS

DevOps & Infrastructure

Kubernetes, Docker, Ansible, GitHub Actions, GitLab CI, Helm, Bare Metal Infrastructure

Monitoring & Observability

Prometheus, Grafana, Elasticsearch, Graylog, Jaeger, OpenTelemetry, AlertManager

Data Engineering

Apache Spark, Apache Kafka, Delta Lake, Apache Druid, PySpark, Apache Airflow, dbt

Databases & Caching

PostgreSQL, TimescaleDB, Redis, DragonflyDB, Trino, Apache Cassandra

Programming & Scripting

Go (Golang), Python, Scala, Bash, SQL, Solidity, TypeScript

Security & Compliance

Cert-Manager, RBAC, OAuth2/OIDC, Ansible Vault

PROJECTS

Mage-ai - [Open Source](#)

Implemented LDAP authentication, Apache Druid integration, and centralized logging system.

Go-mail - [Open Source](#)

Developed middleware architecture pattern and implemented OpenPGP encryption middleware with comprehensive test coverage.

Go-RTE - [Open Source](#)

Created a Go client library for RTE APIs with clean and uniform way to interact with different API endpoints.

EDUCATION

Master's Degree in Computer Science

MINES ParisTech | 2020 - 2021

Minor in Mathematics | Focus on Distributed Systems and Cloud Computing

Engineer's Degree in Industrial Engineering

ENIT | 2018 - 2021

Minor in Data Science | Specialization in Big Data Analytics