Dhia Gharsallaoui

Senior Backend Engineer - DeFi Infrastructure

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Senior Backend Engineer with 4+ years of experience architecting and building high-performance distributed systems. Currently leading backend development at a DeFi trading platform, with deep expertise in Golang, blockchain integrations, and real-time trading infrastructure. Proven track record in crypto startups, building scalable APIs, and implementing mission-critical systems for financial applications.

Technical Skills

Programming Languages

Go (Golang) - Expert

Python - Production

Rust - Familiar

Solidity - Blockchain

TypeScript

Scala

Backend & APIs

REST & GraphQL APIs

gRPC & Protocol Buffers

WebSocket Real-time

Microservices Architecture

Event-Driven Systems

Message Queues

Distributed Systems

Apache Kafka

Redis

PostgreSQL

TimescaleDB

Elasticsearch

Load Balancing

DeFi & Blockchain

Ethereum Protocol

Smart Contract Integration

DEX Trading

Cross-chain Bridges

XRPL Integration

On-chain Data Processing

Professional Experience

Lead Backend Engineer

Perplex - DeFi Trading Platform • *April 2025 - Present*

Leading backend architecture and development for an on-chain trading platform serving DeFi protocols and traders.

• Architecting and implementing high-performance trading backend systems in Golang, handling real-time price feeds and order execution
• Designing scalable API architecture for DeFi trading operations, supporting multiple blockchain networks and DEX

integrations

• Building robust on-chain data ingestion pipelines processing millions of transactions daily with sub-second latency requirements
• Implementing smart contract interaction layers for automated trading strategies and liquidity provision
• Establishing system architecture patterns for high-availability trading infrastructure with zero-downtime deployments
• Collaborating with frontend and protocol teams to deliver end-to-end trading features and risk management systems

Backend Solution Architect
Skilld • *February 2022 - April 2025*

Architected and built scalable backend systems and distributed infrastructure for cloud-native applications.

• Designed and developed high-performance microservices in Golang using domain-driven design principles, serving 10M+ requests daily
• Built event-driven architectures using Apache Kafka and NATS, processing real-time data streams with guaranteed message delivery
• Implemented comprehensive API design patterns with REST and gRPC services, achieving 99.9% uptime across distributed systems
• Developed stream processing pipelines using Apache Spark for real-time analytics and data transformation
• Established monitoring and observability systems with Prometheus, Grafana, and distributed tracing for production debugging
• Implemented database optimization strategies with PostgreSQL and Redis, reducing query response times by 60%
• Built CI/CD pipelines and infrastructure automation reducing deployment time from hours to minutes

Blockchain Backend Developer
ChainsAtlas • *March 2024 - April 2025*

Developed backend systems for blockchain protocols and cross-chain infrastructure at a crypto startup.

• Architected multi-chain bridge backend systems connecting EVM networks with XRPL, handling cross-chain asset transfers
• Built high-performance transaction processing engines with retry mechanisms and comprehensive error handling
• Implemented cryptographic validation systems for multi-signature operations and secure asset management
• Designed blockchain-agnostic APIs enabling protocol deployment across multiple networks
• Developed real-time blockchain monitoring systems with alerting for transaction failures and network issues

Backend Software Engineer
idatase GmbH • *January 2024 - March 2024*

Built scalable data processing backends and APIs for high-volume data ingestion systems.

• Developed high-throughput data ingestion APIs using Python/Flask and PostgreSQL, processing 100K+ records hourly
• Implemented containerized microservices architecture with Docker and Kubernetes deployment
• Built real-time metrics collection systems and alerting infrastructure for monitoring system performance
• Established automated testing and deployment pipelines with GitHub Actions

Education

Master's Degree in Computer Science

MINES ParisTech • *2020 - 2021*

Focus on Distributed Systems and Cloud Computing • Minor in Mathematics

Engineer's Degree in Industrial Engineering

ENIT • *2018 - 2021*

Specialization in Big Data Analytics • Minor in Data Science

Open Source Contributions & Projects

Mage-ai - Data Pipeline Platform

Python • Apache Druid • Authentication Systems

Contributed authentication backend, Apache Druid integration, and logging infrastructure to production data pipeline platform with 15K+ GitHub stars.

Go-mail - Email Client Library

Go • OpenPGP • Middleware Pattern

Architected middleware pattern and implemented OpenPGP encryption for secure email communications, demonstrating advanced Go design patterns.

Go-RTE - API Client SDK

Go • REST API • Client Libraries

Built production-ready Go SDK for RTE APIs with comprehensive error handling, rate limiting, and clean interface design.