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Mohamed Fawzi Zaki

Backend Engineer | PHP/Laravel Specialist

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Professional Summary

Backend Engineer with experience in PHP/Laravel backend systems, specializing in high-performance API development, e-commerce solutions, and scalable architecture. Proven track record in building secure, maintainable systems using SOLID principles, DDD, OOP, Design Patterns, and clean architecture. Combines deep backend development skills with DevOps proficiency to deliver optimized, production-ready solutions. Passionate about code quality (PSR standards), database optimization, and test-driven development. Strong DevOps integration background with Docker, Kubernetes, CI/CD pipelines, and cloud platforms (AWS).

Technical Skills

Core Backend Expertise

- Languages: PHP 8.x, Laravel 10+, SQL, Bash
- API Development: RESTful APIs, Webhooks
- **Architecture:** Microservices, Domain-Driven Design (DDD), CQRS, Clean Architecture, MVC, Repository Pattern
- Database Engineering: MySQL (Query Optimization, Indexing, Replication), Redis (Caching, Queues)
- Code Quality: OOP, Algorithms, DataStructures, SOLID, DRY, KISS Principle PSR Standards, Design Patterns
- Version Control: Git, Github.
- Message Brokers: RabbitMQ, Kafka, AWS SQS, AWS SNS.

DevOps Integration

- Virtualization: VirtualBox, Vagrant.
- Containers & Orchestration: Docker, Kubernetes (EKS, Minikube), Helm.
- Infrastructure as Code: Terraform, Vagrant.
- Configuration Management: Ansible.
- Version Control: Git, Github.
- CI/CD: GitHub Actions, Jenkins, GitHub Webhooks.
- Monitoring & Observibility: Prometheus/Grafana, CloudWatch.
- Cloud (AWS): EC2, S3, RDS, EKS, IAM, CloudWatch.
- **Networking:** Service meshes, load balancing (NGINX), distributed systems.
- **Security:** IAM, Secrets Management, SSL, Firewalls, Input validation, rate limiting, API token management, JWT, CSRF/XSS protection

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Security & Performance

- API Security: OAuth2 (Passport), JWT, Rate Limiting
- Web Security: CSRF/XSS Protection, SQL Injection Prevention
- Optimization: Redis Caching, Query Tuning, Load Testing

Collaboration & Process

• Git/GitHub, Agile, Jira.

Backend Projects

Laravel Multi-Vendor E-commerce Platform API

GitHub A robust and scalable RESTful API built with Laravel supporting vendor onboarding, product management, inventory, order processing, and settlements.

- Secure multi-vendor authentication & authorization (Sanctum)
- Product and variation support
- Vendor store and warehouse management
- Orders, carts, and checkout workflows
- Payment & settlement system
- · Reporting, analytics, webhooks, and full test coverage
- Stack: Laravel 10+, MySQL, Redis, Laravel Queues, PHPUnit

Laravel-Multi-Gateway-Payments

GitHub A modular and extensible Laravel project for integrating multiple payment gateways (e.g., Stripe, Tap, PayPal, etc.) with unified interfaces, secure webhook handling, and clean service-based architecture.

Infrastructure Projects

End-to-End Kubernetes Microservices Pipeline

GitHub

Automated deployment pipeline for microservices on Kubernetes end-to-end (E2E) DevOps automation pipeline for deploying microservices using modern DevOps tools

- Built CI/CD with **GitHub Actions** using self-hosted runners
- Provisioned Kubernetes clusters via Terraform and Ansible
- Implemented **Helm charts** for service deployment
- Configured service meshes and ingress controllers
- Technologies: Kubernetes, Terraform, Helm, GitHub Actions
- Impact: Reduced deployment time by 75%

Production-Grade Web Stack with Docker Mesh

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GitHub

A production-ready, full-stack web application deployment using Docker Compose with multi-tier networking, horizontal scaling, and service orchestration.

- Deployed a scalable React + Node.js + MySQL application stack behind Nginx load balancers
- Configured horizontal scaling for Node.js services and load balancing with Nginx
- Integrated **Redis** for caching and **phpMyAdmin** for database management
- Managed **secure networking** with separate public/private subnets and SSL support
- Automated deployments with custom Docker Compose files and environment-specific configurations
- Technologies: Docker Compose, React, Node.js, Nginx, MySQL, Redis, phpMyAdmin, Shell Scripts

Monitoring Stack on Kubernetes (Prometheus/Grafana/Jenkins)

GitHub

A lightweight DevOps stack for local Kubernetes environments using Helm and Minikube. Automates the deployment of Jenkins (CI/CD), Prometheus (monitoring), and Grafana (visualization) for rapid DevOps workflows and testing.

- Deployed Jenkins, Prometheus & Grafana on Minikube via Helm
- Configured custom dashboards and metric scraping
- Set up **persistent storage** for time-series data
- Technologies: Kubernetes, Helm, Prometheus, Grafana

Education

Faculty of Medicine, Sohag University, Egypt

2019 - 2025

Note: Self-taught Backend engineering through projects and certifications while completing medical degree.

Languages

• Arabic: Native

• English: Professional Proficiency