

Omar Mamon

Backend Engineer

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Professional Summary

Backend Developer with 2+ years of experience building scalable, production-ready systems in Go, Python (FastAPI/Flask), and PHP (Laravel). Proven track record delivering real-time platforms, event-driven microservices with RabbitMQ and Redis, and enterprise-grade capabilities including SAML SSO and automated CI/CD pipelines. Passionate about clean architecture, database performance, and shipping AI-integrated solutions that make a measurable impact.

Experience

Backend Developer & Team Lead, The AgileWorx Company 🐦 – Hybird Jun 2026 – Present

- Technical Team Leadership: Led backend engineering for Slideworx across a 3-engineer team, driving sprint planning, task distribution, and clean-code architecture standards.

Software Engineer (Project-Based), Raaed – Remote Dec 2025 – May 2026

- Real-Time Data Pipeline: Architected an Avaya monitoring pipeline with C++ RTD SDK, Python asyncio fan-out, and WebSocket push to web and desktop clients, supporting 1500+ concurrent agent streams.
- Multi-Service Communication Platform: Designed a messaging service with supervisor-to-agent communication and rule-driven threshold alerts.
- Desktop Application Architecture: Developed a companion desktop app with Tauri and Rust, implementing automated session recovery, background heartbeats, and config caching.
- Data Ingestion Optimization: Built an ingestion engine for high-volume record streams with tiered deduplication, batch processing windows, multi-database routing, and indexed storage.
- Full-Stack Management Modules: Engineered an administration portal with Next.js and FastAPI covering RBAC, attendance systems, and reporting pipelines.

Education

Ain Shams University, Faculty of Engineering – Cairo, Egypt Sep 2021 – June 2026

B.Sc. in Computer and Systems Engineering GPA: 3.22/4.00

Graduation Project: RUNE Low-Code Automation Platform Sponsored by Microsoft

- **Core Engine Infrastructure:** Built concurrent Go workers paired with a Rust streaming engine for real-time workflow task execution over RabbitMQ queues.
- **Extensible MCP Client:** Developed an MCP client inside the Go worker to programmatically wrap external tools, enabling seamless third-party integration.
- **Native Ecosystem Connectors:** Engineered type-safe integration nodes for Outlook, Gmail, Slack, Dropbox, Google Sheets, Jira, and Telegram, enabling reliable cross-platform workflow automation.
- **SAML SSO & Identity Security:** Built an enterprise SAML SSO authentication pipeline handling identity tracking, token validation, and access control.

Internships

Machine Learning Intern, Cellula – Cairo, Egypt Feb 2025 – Mar 2025

- Data Intelligence: Conducted exploratory data analysis on production datasets to extract actionable insights and predict trends using Pandas and Seaborn.
- Model Development: Built Scikit-learn ML models for classification and regression tasks, supported by performance visualizations.
- Deployment: Integrated predictive models into production web applications using Django and Flask.

Backend Web Development Diploma, Mec Academy – Cairo, Egypt Jun 2024 – Dec 2024

- PHP & Laravel: Studied PHP fundamentals, OOP, and MySQL database design; delivered applications with Laravel covering authentication, routing, CRUD operations, and admin panels.
- Architecture & APIs: Applied MVC design patterns and RESTful API integration principles throughout project work.

Technical Skills

Languages: Python, Go, PHP, C++, Java, JavaScript, SQL, Bash

Frameworks: FastAPI, Flask, Django, Laravel, Node.js, Next.js, React, Tauri

Databases: MySQL, PostgreSQL, MongoDB, Redis

DevOps / Tools: Git, GitHub, Docker, GitHub Actions, CI/CD Pipelines, RabbitMQ, WebSockets

Soft Skills: Leadership, Technical Writing, Public Speaking, Time Management

Projects

Flowtics: Business Tracking Dashboard	Live 
• A production desktop application (Electron.js, React, PostgreSQL, Node.js) covering end-to-end business operations: inventory, CRM, financial analytics, and a complete HR system. • Implements RBAC, device licensing with activation keys, and an automated self-updating CI/CD pipeline via GitHub Actions.	
Cartnest: Full Trading E-Commerce System	GitHub 
• FastAPI and SQLAlchemy backend with APIs for users, products, deposits, and transactions. • Distributed PostgreSQL with replicas and table partitioning for scalability; fully containerized with Docker.	
FareSpot: Fare Prediction Platform	GitHub 
• ML model deployed via Django on large real-world datasets with advanced preprocessing and feature engineering using Python, Pandas, and Scikit-learn.	

Certificates

Backend Development Certificate <i>Mec Academy</i>	View 
Machine Learning Certificate <i>Cellula</i>	View 
Java: Problem Solving <i>Coursera</i>	View 
Java: Data Structures <i>Coursera</i>	View 

Languages

Arabic: Native
English: Conversational