Lamyaa Alghaihab

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Summary

Junior software engineer focused on backend development, with a B.Sc. in Mathematics. Led the backend of LOVEN, an art marketplace app: a versioned REST API on PostgreSQL with Firebase authentication, Moyasar payment verification and push notifications, integrated with a Flutter client. Currently learning Java and Spring Boot.

Technical Skills

Languages: Python, SQL, C, JavaScript, Dart (Flutter)
Backend: Flask, SQLAlchemy, REST API design, JWT authentication, Gunicorn
Databases: PostgreSQL, SQLite, Alembic migrations, schema design
Integrations: Moyasar payments, Firebase (Authentication, Cloud Storage, Cloud Messaging)
Tools & Testing: Git, GitHub, Docker, Postman, unittest, Linux, Render, Jira

Projects

LOVEN – Art Marketplace App (Backend Lead) Mar 2026 – Jul 2026
Flask, PostgreSQL, SQLAlchemy, Alembic, Firebase, Moyasar, Docker, Flutter *Case study*

- Led backend development in a team of 5 for a marketplace that gathers local artists, scattered across Instagram, TikTok and Haraj, into one platform. Designed a versioned REST API (62 endpoints, 14 modules) on a 13-table PostgreSQL schema, with a layered architecture (routes, services, repositories).
- Migrated authentication from local passwords to Firebase Authentication, so every account has a verified email: the API verifies Firebase ID tokens server-side and issues its own JWT access and refresh tokens only after verification, with a role allowlist that blocks privilege escalation at sign-up.
- Integrated Moyasar payments with server-side verification: an order is fulfilled only when the gateway's status, currency and amount (in halalah, using `Decimal`) match the order total. Verification is idempotent, and a payment can't be reused for another order.
- Built a central notification service (in-app and Firebase Cloud Messaging push) for 7 event types, with de-duplication, plus scheduled reminder jobs for pending orders and abandoned carts.
- Wrote the Flutter HTTP client that attaches tokens, refreshes an expired session once and retries, merging simultaneous refreshes into a single call.
- Covered authentication, order access and notifications with 44 unit tests. The API runs in Docker (Gunicorn) on a Render staging environment, with payments in Moyasar test mode.

Education & Training

Tuwaiq Academy × Holberton School Aug 2025 – Jun 2026
Holberton Foundation Bootcamp in Software Engineering (468 training hours) *Riyadh, Saudi Arabia*

- Built a UNIX shell and a `printf` implementation in C: process creation with `fork` and `execve`, PATH resolution, and manual memory management checked with Valgrind.
- Distinguished bootcamp student; Champion of the Week; 3rd place, Tuwaiq Challenges (Programmers' Day).

Samsung Innovation Campus, in partnership with Misk Foundation Jul 2026 – Sep 2026
Artificial Intelligence Course. Capstone: AI worker safety compliance detection *Riyadh, Saudi Arabia*

King Saud University Jan 2024
Bachelor of Science in Mathematics *Riyadh, Saudi Arabia*

- Graduation research on Sobolev spaces: 3rd place for best graduation project in the Department of Mathematics.

Other Experience

Digital Marketing Specialist, Master Account Company for Accounting Services, Riyadh Apr 2025 – Jul 2026
Human Resources Specialist (Tamheer Program), Cenomi Retail, Riyadh Aug 2024 – Oct 2024