

ABDALLA YAHYA

Backend Developer

☎ +971 52 494 2868 ✉ abdallayahya158@gmail.com 🔗 <https://www.abdallayahya.tech> 📍 Al Nahda, Dubai, United Arab Emirates

SUMMARY

backend developer with 8 years in programming 5 years in web development using Node.js-Express.js-NestJS-MongoDB-MySQL and deployment on AWS. I have built ERP-POS-CRM systems and a Linux server monitoring web app and iot integration and 3 years in IoT and embedded using Qt-QML-C++ Python-RaspberryPi-ESP32-Arduino I have worked with many sensors and am an expert in real-time data using the MQTT protocol and Socket.IO and I have built home-automation devices

TECHNICAL SKILLS

Programming & Backend

Node.js, TypeScript (ES6+), NestJS, Express.js, Microservices, REST APIs, GraphQL, WebSockets, Socket.IO, IoT Integration, Secure/Testable Code, MQTT

Frontend (familiar)

React.js, Next.js, CSS, HTML

Databases (Relational & NoSQL)

PostgreSQL, MySQL, MongoDB, Redis

Cloud & DevOps

AWS (EC2, S3, RDS, Lambda, CloudWatch), Docker, GitLab CI/CD, Nginx, Kubernetes (basic), Monitoring & Logging, openstack, apache2

Quality, Security & Operations

Unit & Integration Testing, OAuth2, JWT, TLS/HTTPS, OpenSSL, TLS

Process & Ways of Working

Agile/Scrum · Sprint Planning · Daily Stand-ups · Stakeholder Collaboration · Research & Technology Evaluation

Software

Qt, QML, QML Plugin, C++, GCC, CMAKE, linux, Python

EXPERIENCE

Backend Developer

Prosoft Solutions

📅 10/2023 - 08/2025 📍 Saudi Arabia

- Scope: Co built a full stack ERP + POS and eCommerce for medical-pharma multi-branch inventory, batches-expiry , purchasing-sales invoicing-VAT , suppliers-returns users-roles, audit logs; plus modules for accounting, procurement, project management, risk & compliance,supply chain
- Backend: delivered 4 NestJS microservices on AWS (EC2, S3) exposed REST-GraphQL APIs designed PostgreSQL schemas
- Object Storage: implemented S3 pre-signed + multi-part uploads (≤ 5 GB) with retries-monitoring raised upload success and availability for images/docs
- Frontend Collaboration: built Next.js flows (catalog , purchase orders, receiving , POS) and worked closely with frontend-DevOps to keep pipelines stable and fast
- Business Impact: kicked off with a process analysis to streamline the business cycle developed effective efficiency across warehouses , sales , and customer interactions

EXPERIENCE

Backend Developer

Code Chef

06/2021 - 08/2023 Egypt

- Developed & refactored ERP-POS & e-commerce backends Nest.js-Express.js
- Built a GraphQL gateway with Redis caching increased RPS 30% without extra infra cost
- Built a full stack server monitoring & management system using Node.js and MQTT for real time communication. Deployed a lightweight agent (child.js) on each server to publish live IP, CPU/memory usage, disk space, MAC address uptime/health via MQTT topics. Designed a web dashboard (grid view) showing real time server status (up/down), disk capacity/usage and live metrics. Click through on any server opens a terminal-like interface that's simpler and quicker than SSH for routine ops supports remote command execution with streamed output in real time. Used Socket.IO for UI updates and Node's os module for system metrics improved visibility and incident response through low latency telemetry.

Mid-Level Embedded Systems & IoT Developer

RemnumOffice

01/2020 - 12/2021 Egypt

- Developed Qt6QuickMongoDB a QML plugin by encapsulating the MongoDB C Driver within a C++ library Registered typed APIs with QQmlEngine, enabling asynchronous CRUD operations connection pooling, signals-slots integration with QObject-Q_PROPERTY for QML access, and facilitated BSON to JSON conversion. Utilized CMAKE for packaging on Linux-ARM (Raspberry Pi). Achieved a significant decrease of approximately 70% in MongoDB integration efforts per project
- Participated in the development of a Raspberry Pi CoovaChilli captive portal, which included setting up a hotspot and managing DHCP, DNS, and iptables, along with authentication and session management. Implemented backend features for promotions using Twilio for SMS and an email library. This initiative led to a significant boost of approximately 25% in mall sales by providing on-login promotions and focused remarketing strategies.
- Worked in a 3 engineer embedded team to deliver an ESP8266 custom-PCB solution with real-time MQTT telemetry to a backend and Raspberry Pi touchscreen dashboard threshold alerts (temp/humidity/gas/fire) via Twilio SMS/email for residential & industrial use. Contributed the device firmware MQTT topicsschema while teammates covered PCB revisions and server dashboards.

Junior Embedded Systems & IoT Developer

RemnumOffice

01/2018 - 01/2020 Egypt

- built a image editor using QT-QML-C++ worked in ubuntu desktop and raspberry pi touch screen
- learned basics linux commands line install raspberry pi os system like Stretch OS and enapled ssh and configuerd system files
- worked with hardware sensors like temp sensor - gas sensor - motion sensor and raspberry pi cam
- read sensors data via I2C-SPI-UART-GPIO using wiring pi lib and publish the data over mqtt protocol
- Integrated IoT Devices with AWS: Connected Raspberry Pi, ESP8266, and ESP32 with AWS IoT Core and created Lambda functions for seamless integration with DynamoDB.
- built a car security system using Raspberry Pi, Raspberry Pi Camera, a GSM module with SIM card, and a motion sensor. when motion is detected, it sends an SMS alert and starts video streaming from the car using FFmpeg & FFserver. internet connectivity runs over the SIM card, and Gammu is used to send the SMS via the GSM dongle.

EDUCATION

Bachelor of Commerce (B.Com) - Accounting

Port Said University - Faculty of Commerce

09/2017 - 07/2022 Port Said, Egypt

- Relevant coursework Business Process Design, Project Management, Financial Accounting
- Operations & Logistics
- Built foundation in business workflows (invoicing, VAT, inventory, supply chain), later applied
- To ERP/POS system development

LANGUAGES

Arabic	Native	English	Advanced
--------	--------	---------	----------