

ABDULLAH RIAD MADANI

Full Stack Developer | Backend, Automation & AI-Enabled Systems

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PROFESSIONAL SUMMARY

Full Stack Developer with 6+ years of experience designing, developing, maintaining, and improving scalable web applications, backend services, REST APIs, database-driven systems, ERP integrations, and business automation platforms. Strong hands-on experience with Python, Flask, FastAPI, JavaScript, C#, SQL databases, Odoo/Nexterp, system integrations, troubleshooting, and production support. Recently expanded into AI-enabled and intelligent automation solutions, including OCR services, document parsing APIs, Langflow-based workflows, travel and visa automation, and structured data extraction. Able to work across backend, frontend, databases, APIs, automation pipelines, and AI-assisted workflows while collaborating with business stakeholders, product teams, and DevOps teams to deliver reliable and maintainable software.

TECHNICAL SKILLS

Programming & Backend: Python, Flask, FastAPI, C#, REST APIs, API integration, API authentication, JSON, asynchronous processing, backend services

Frontend: HTML, CSS, JavaScript, jQuery, Bootstrap, responsive web interfaces, UI updates, website enhancement

Databases & ERP: MariaDB, PostgreSQL, MySQL, Odoo, Nexterp, database design, data synchronization, migration, data validation

Automation & AI-Enabled Systems: OCR, OpenCV, Langflow, RAG concepts, document parsing, image processing, CAPTCHA automation, Selenium, BeautifulSoup

Tools & Delivery: Git, GitHub, GitLab, Jira, Postman, Google Colab, deployment support, API collections, debugging, production issue analysis

Domain Experience: Travel technology, travel-agency visa and Umrah workflows, helper tools for processes related to Nusuk, Saudi MOFA services, and Egyptian Umrah Portal, booking workflows, passport reader integration, ERP systems

PROFESSIONAL EXPERIENCE

Safa Soft | Cairo, Egypt

Full Stack Developer | 02/2020 - Present

Software solutions and travel-technology company

- Designed, developed, maintained, and improved secure full-stack web applications, backend services, REST APIs, and database-driven systems using Python, Flask, FastAPI, JavaScript, jQuery, MariaDB, PostgreSQL, and Odoo/Nexterp.
- Built and maintained internal operations and business automation platforms to streamline workflows, improve data processing, support reporting, and reduce manual operational effort.
- Developed secure API integrations between legacy systems, ERP platforms, internal tools, and external service providers, improving data synchronization and operational reliability.
- Built high-volume automation and web scraping tools for travel, booking, visa, and document-related workflows, including structured data extraction, validation, image handling, and JSON/API outputs.
- Developed automation and helper tools supporting travel-agency visa and Umrah workflows, including processes related to Nusuk, Saudi MOFA services, and the Egyptian Umrah Portal, with focus on document handling, validation, data processing, and structured outputs.
- Developed OCR and document parsing services to extract structured information from booking PDFs and travel documents using Python, FastAPI, OCR pipelines, asynchronous job processing, and JSON-based API responses.
- Built high-volume visa image extraction services capable of searching large visa batches, capturing images, converting outputs to Base64, and returning structured API-ready responses.
- Integrated passport reader devices with internal systems to automate document scanning, extract passport data, reduce manual entry, and improve customer processing workflows.
- Contributed to AI-enabled automation initiatives, including Langflow-based workflows, document understanding, destination discovery concepts, and backend integration for intelligent travel operations.
- Collaborated with business users, managers, QA, and DevOps teams to analyze requirements, troubleshoot production issues, deploy updates, prepare API collections, and improve system stability.

NexGen | Cairo, Egypt

IT Manager | 09/2019 - 02/2020

Building and home automation technology company

- Developed and implemented smart home solutions, including intelligent lighting, climate control, energy-saving automation, mobile application control, and real-time device synchronization.
- Configured smart devices, sensors, network settings, surveillance cameras, DVR units, and motion sensors to ensure reliable functionality and improved security coverage.

SELECTED FULL STACK, AUTOMATION & AI-ENABLED PROJECTS

Internal Business Automation Platform: Developed and maintained internal systems supporting operational workflows, reporting, data processing, system integrations, and long-term process improvement.

Visa & Umrah Workflow Automation: Developed helper tools and automation workflows for travel-agency visa and Umrah operations, including processes related to Nusuk, Saudi MOFA services, and the Egyptian Umrah Portal, covering document handling, validation, image extraction, data processing, and structured API-ready outputs.

OCR Booking Extraction API: Built a FastAPI-based OCR service to parse booking PDF documents and return structured JSON data including hotel details, check-in/check-out dates, room type, meal type, pricing, and document metadata.

High-Volume Visa Image Extraction Service: Developed a backend automation service for searching large visa batches, extracting visa images, converting outputs to Base64, and returning clean JSON responses for internal integration.

AI-Enabled Travel Operations: Contributed to intelligent travel automation concepts using Langflow, structured retrieval, preference handling, document understanding, and backend API integration for travel discovery and operational support.

ERP & Legacy System Integration: Integrated legacy systems with Odoo/Nexterp through REST APIs, database synchronization, migration scripts, and custom business workflows.

Passport Reader Integration: Integrated passport reader devices with internal applications to extract, parse, validate, and process passport data for real-time operational use.

Corporate Website Enhancement Project: Implemented frontend and content updates, asset replacements, page adjustments, UI fixes, and deployment support for business website improvements.

EDUCATION

Arab International University | Bachelor of Information Technology | 09/2014 - 06/2019

LANGUAGES

Arabic: Native | English: Proficient