

Abdelrahman Hassany

Backend Developer | Django Specialist | Cybersecurity Enthusiast

abdo.hassany5520@gmail.com | +20 1024194693 / +20 1027546227 | Cairo, Egypt | [LinkedIn](#) | [GitHub](#)

SUMMARY

Backend Developer with hands-on experience in building secure and **scalable web applications** using **Django and Django REST Framework**. Proficient in **Python, Celery, Redis, and PostgreSQL**, with a strong focus on **API design, asynchronous task management**, and **robust authentication systems using JWT**. Skilled in applying **OWASP security principles, penetration testing**, and developing encrypted data workflows. Well-versed in software testing, **Git-based CI/CD pipelines**, development. Ranked among the **top 1% globally on TryHackMe** for web security and ethical hacking challenges.

KEY COMPETENCIES

- PostgreSQL & MySQL Databases
- Git Version Control & CI/CD Workflows
- Basic Frontend (HTML&CSS, JavaScript)
- Celery & Asynchronous Task Queues
- Penetration Testing & Ethical Hacking
- Python Programming
- Django Framework
- Redis & Redis Cloud
- JWT Authentication
- Secure Software Development
- API Design & Development
- Web Security & OWASP Principles
- Metasploit & Burp Suite
- Unit Testing with unittest & pytest
- Django REST Framework

PROFESSIONAL EXPERIENCE

inSprint (Freelance Project) | (Ongoing)

- Built a scalable content scheduling and automation platform for professional social networks, integrating AI-generated posts and advanced timing logic.
- Architect and implement JWT-based authentication with tokens securely stored in Redis, enhancing session management efficiency and security.
- Design and maintain asynchronous task workflows using Celery and Redis, reducing system latency and improving background job reliability.
- Collaborate on frontend development using Tailwind CSS and JavaScript to deliver a responsive user interface, improving overall user experience.
- Ensure code quality and system scalability by applying best practices in Django REST Framework and continuous integration workflows.
- Implemented secure password reset flow with OTP sent via email, enhancing user account recovery and platform trust.

Independent Cybersecurity Projects (Freelance)

Penetration Tester | (Jan 2022 – present)

- Explored common web security vulnerabilities (e.g., SQL Injection, XSS) using Django-based test environments.
- Utilized Burp Suite and Metasploit to assess security flaws and develop recommendations for improving the security posture of web-based applications.
- Applied secure development practices (authentication, session management, input validation) in Django APIs.
- Analyzed network traffic using Wireshark to identify security weaknesses and potential threats in web communications. Gained practical knowledge of web security principles, ensuring safe and resilient backend API designs.

PERSONAL PROJECTS

Secure Django Authentication System | [View on GitHub](#)

- Designed and implemented a robust authentication framework using Django and JWT, emphasizing security best practices such as secure cookie storage and token blacklisting.
- Automated token refresh and invalidation processes to ensure seamless and secure user sessions.
- Enhanced user account protection with OTP-based email verification and password recovery workflows, reducing security risks.
- Open-sourced the system to promote adoption of advanced authentication techniques in the Django community.

Django Channels Chat App | [View on GitHub](#)

- Built a minimal real-time group chat using Django Channels, Redis, and WebSockets.
- Implemented asynchronous consumers with Redis channel layer and room-based messaging.
- Designed lightweight frontend with HTML/CSS/JS and deployed via ASGI using Uvicorn.

Django Rate Limiting API | [View on GitHub](#)

- Developed a hybrid rate-limiting system using both django-ratelimit and custom Redis-based logic for fine-grained control.
- Integrated Redis for efficient request tracking and expiration, ensuring minimal latency and scalability.
- Designed clear JSON responses that include remaining quota and retry time, improving developer experience and API usability.
- Applied strict blocking on sensitive API endpoints to mitigate abuse and enhance security.

EncryptionField Encrypted Data Storage for Django Models | [View on GitHub](#)

- Created a reusable Django model field that transparently encrypts and decrypts sensitive data using Fernet symmetric encryption.
- Ensured database compatibility by encoding encrypted binary data as base64 text, enabling secure storage without schema changes.
- Developed tooling to generate encrypted test data automatically, improving security-focused development and testing practices.
- Strengthened data confidentiality and compliance with privacy regulations through database-level encryption.

E-Commerce Web Application | [View on GitHub](#)

- Built a scalable e-commerce platform with distinct user roles and permissions for sellers and customers.
- Implemented advanced shopping cart functionality with cookie-based session persistence and cart merging after login.
- Integrated PayPal payment API to facilitate secure, compliant payment processing.
- Delivered a modular, maintainable codebase structured for future enhancements and increased user demand.

ACHIEVEMENTS

- Top 1% globally on TryHackMe for web security and Capture The Flag competitions.
- Currently developing an AI-powered LinkedIn post scheduler with secure, scalable backend.
- Open-sourced secure Django JWT authentication middleware with advanced token management.
- Created an encrypted Django ORM field, enhancing database security.

EDUCATION

- **AMIT Learning, Cairo, Egypt | Oct 2024 to Jan 2025**
 - Cybersecurity Diploma
- **Helwan University | 2022**
 - Bachelor Degree in Commerce

LANGUAGES

- **Arabic:** Native
- **English:** Proficient

MILITARY STATUS

- **Military service completed (J U L Y 2 0 2 3 – S E P 2 0 2 4)**