

HOSAM DYAB

Junior Penetration Tester | Aspiring Security Engineer

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SUMMARY

Computer Science graduate (MTI) with an Excellent-grade record and a top-5 class ranking. eJPT-certified (INE) with hands-on cybersecurity exposure through an internship, a workshop track, and applied cryptography and anti-fraud work on a shipped mobile system. Proficient in Python, Java, C++, and SQL. Seeking a Junior Penetration Tester role in Egypt, open to freelance security engagements, aiming to grow into a Security Engineer position.

CERTIFICATIONS

eJPT – Junior Penetration Tester: INE, issued Jun 2025, valid through Jun 2028

Also holds: Ethical Hacking & Computer Network Fundamentals (ITI), Azure Data Fundamentals (DP-900), Microsoft Dataverse, Google Digital Marketing

EXPERIENCE

Raiffeisen Bank International AG — Student Job, Data Warehouse Platform | Vienna, Austria

Aug – Sep 2025

- Worked within a data warehouse platform team at a major European bank, gaining exposure to enterprise data infrastructure, access controls, and operational data-handling standards.

Prodigy InfoTech — Cyber Security Intern | Remote

May – Jun 2025

- Completed applied cybersecurity tasks covering reconnaissance, vulnerability identification, and security-tooling fundamentals as part of a remote internship track.

IEEE Cairo University Student Branch — Cybersecurity Workshop | Cairo, Egypt

Apr – Sep 2024

- Completed a hands-on cybersecurity apprenticeship track covering core security concepts and practical exercises alongside a student engineering community.

InterContinental Hotels & Resorts — IT Support Intern | Cairo, Egypt

Jan – Feb 2024

- Supported hotel IT infrastructure including database operations, the Micros POS system, and guest door access systems, while maintaining security systems and access controls in line with hotel IT and data-protection policies.

GRADUATION PROJECT

ClassTrack — Mobile System for Student Performance Monitoring and QR-Based Attendance

2025 – 2026

Flutter, Supabase, Python (Flask), YOLOv8, FaceNet, Linear Regression | Supervised by Prof. Dr. Hanafy Mahmoud Ismail

- Built an anti-fraud attendance pipeline combining time-bound dynamic QR codes with on-device face verification (YOLOv8-Face + FaceNet, 94.3% true-acceptance rate), JWT-based API authentication, and encrypted local storage.
- Designed a cross-platform Flutter app backed by Supabase and a Flask AI microservice, plus a linear-regression grade-prediction model (R-squared 0.847) for early at-risk-student alerts, open-sourced separately as student-grade-prediction-api.
- Validated the system through a live pilot in an OOP course section and managed the project end to end from planning through production deployment.

PROJECTS

Numerical Analysis Application | Python, NumPy, SymPy, Matplotlib, ReportLab, CustomTkinter

- Built a desktop app (with Hazem Mohamed, for Dr. Rania Ahmed's Numerical Analysis course) implementing five root-finding methods and seven linear-system solvers (Gauss/Gauss-Jordan Elimination, LU Decomposition with/without partial pivoting, Cramer's Rule), with an interactive CustomTkinter UI, convergence-graph visualizations, solution history, and automated PDF report export.

Hospital Management System | Python, Tkinter, MySQL

Jan – May 2024

- Engineered a desktop hospital management app (patient records, scheduling, billing, inventory) on a normalized MySQL schema, with advanced search and multi-field filtering in a Material Design-inspired UI.

Banking System Simulation | C++, OOP

Oct 2023 – May 2024

- Architected an object-oriented banking simulator with classes for accounts, customers, and transactions, including input validation, exception handling, and concurrency-style performance testing.

Classical Cryptography Algorithms | Python

- Implemented seven classical cryptographic algorithms from scratch (Caesar, Monoalphabetic, Playfair, Polyalphabetic, Row Transposition, Rail Fence, RC4) with zero external dependencies.

Luxury Hotel Management App | Flutter, Dart

- Built a cross-platform hotel management app covering room bookings, secure user authentication, real-time room availability, and booking modifications.

Logic-Based Travel Planner | Prolog

- Designed a logic-based travel planning system for a Logic Programming course, including UML-based software design documentation.

Also built: Admin-app (Flutter/Dart) — administrative dashboard companion to ClassTrack; Quiz-App (CSS) — front-end quiz interface.

TECHNICAL SKILLS

Languages: C, C++, C#, Java, Python, SQL (MySQL), Dart

Frameworks & Tools: Flutter, Supabase, Flask, Git, GitHub, Visual Studio, VS Code, IntelliJ IDEA, Linux, Windows

Concepts: Object-Oriented Design, Data Structures & Algorithms, Relational Databases, ML & Computer Vision fundamentals, Version Control

Languages Spoken: Arabic (Native), English (Professional), German (B2), French (Beginner)

EDUCATION

Modern University for Technology and Information (MTI)

Sep 2022 – Jul 2026

Bachelor of Computer Science, Faculty of Computers & Artificial Intelligence

- GPA: Excellent (Distinction), 4-year Dual Degree Program, graduate (certificate pending issuance). Ranked 5th in Computer Science, Level 3 (2024/2025); recognized as an outstanding student, Level 2 cohort (2023/2024).

LEADERSHIP & ACTIVITIES

Enactus MTI — Head of Marketing & Media (Sep 2023 – Feb 2024); Vice Head (Nov 2022 – Sep 2023)

Organizer, EYE – Ministry of Youth and Sports of Egypt (Feb 2025 – Present)