

EDUCATION

- **Egyptian Chinese University** Cairo, Egypt
Bachelor of Engineering in Software Engineering and Information Technology Sep. 2022 – July. 2027

EXPERIENCE

- **Digital Egypt Cubs Initiative** Freelance - On Site
Teaching Assistant March 2025 - Present
 - **Student Support and Mentorship:** Provided guidance and support to students, helping them understand complex programming concepts through hands-on exercises and real-world scenarios.
 - **Practical Labs Assessments:** Developed and supervised lab exercises and assessments to reinforce theoretical knowledge, ensuring students gained practical experience in cybersecurity tools and techniques.
- **Samsung Innovation Campus** Training - Hybrid
Coding & Programming Trainee Jul 2024 - Sep 2024
 - **Python Development:** Developed efficient Python scripts utilizing **variables, conditions, loops, and functions**, optimized code execution, and implemented exception handling. Utilized key libraries such as **math**, **datetime**, and **random**.
 - **Object-Oriented Programming (OOP):** Designed and implemented modular, reusable Python applications using **Encapsulation, Inheritance, Polymorphism, and Abstraction**. Developed custom **Dunder Methods** to enhance object behavior.
 - **Data Structures & Algorithms:** Implemented fundamental and advanced data structures (**Lists, Sets, Dictionaries, Trees, Graphs, HashMaps**). Optimized sorting and searching algorithms, reducing execution time by **30%** on large datasets.
 - **Algorithmic Problem-Solving:** Applied **Recursion, Dynamic Programming, Greedy Algorithms, and Divide & Conquer** to solve complex problems. Analyzed time complexity using **Big O Notation**.
- **Systel Telecom** Training - On Site
Networking and Cybersecurity Trainee Jan 2024 - Feb 2024
 - **Network Configuration & Troubleshooting:** Configured and troubleshot network infrastructure, including **routers, switches, firewalls, and VLANs**, ensuring optimal performance and security. Used **Cisco IOS, Packet Tracer, and Wireshark** for monitoring and diagnostics.
 - **Security Assessments & Hardening:** Performed **vulnerability scans, penetration testing, and security hardening** to mitigate risks. Implemented firewall rules and access control policies to enhance network security.
 - **Technology Adaptation & Continuous Learning:** Explored and implemented emerging **networking and cybersecurity technologies**, including **IDS/IPS, SIEM, and cloud security solutions**, to improve efficiency and resilience.
 - **Network Documentation & Optimization:** Created detailed **network diagrams, security policies, and troubleshooting guides**, improving documentation standards and knowledge sharing.

PROJECTS

- **Network Packet Sniffer – Python-Based Network Monitoring Tool:** Developed a **comprehensive network packet sniffer** using **Python** to capture, analyze, and visualize network traffic in real time. The tool supports filtering by protocol, source, and destination, and logs packet details for further analysis. [GitHub: [Link](#)]
- **Keylogger – Python-Based Keystroke Monitoring Tool:** Designed and implemented a **keylogger** using **Python** for **security research and forensic analysis**. The tool captures keystrokes, logs special keys, and records timestamps for each entry to aid in security assessments and awareness. [GitHub: [Link](#)]
- **Pixel Manipulation for Image Encryption – Secure Image Processing Tool:** Developed an **image encryption and decryption tool** using **XOR-based pixel manipulation techniques** to enhance data security and protect sensitive visual information. The tool allows users to encrypt and decrypt images efficiently with a user-defined key, ensuring confidentiality and integrity. [GitHub: [Link](#)]
- **Caesar Cipher – Encryption & Decryption Tool:** Developed a **Python-based Caesar Cipher tool** for encrypting and decrypting text using **shift-based substitution encryption**. The program supports both encryption and decryption, validates user input, and ensures security by handling invalid cases effectively. [GitHub: [Link](#)]
- **Password Checker – Security Strength Assessment Tool:** Developed a **password strength checker** using **Python** to evaluate and enhance password security. [GitHub: [Link](#)]

TECHNICAL SKILLS

- **Programming Languages:** Python, C#, C++, HTML, CSS, JavaScript, SQL
- **Technologies, Tools, and Frameworks:** Linux, Git, GitHub, .NET, EF Core, LINQ, ASP.NET MVC & API, SDLC, OOP, Data Structures, Algorithms
- **Cybersecurity and Networking Skills:** Wireshark, Burp Suite, Phishing, Anti-Phishing, Security Operations, IT Security Policies & Procedures, Network Protocols, Threat Analysis

VOLUNTEERING EXPERIENCE

- **IEEE ECU Student Branch** Egyptian Chinese University
Head of Software Department Feb 2025 - Present
 - Managing and leading the Software Department, overseeing multiple educational tracks with over **50 students**.
 - Organizing and delivering workshops on **Web Development, Cybersecurity, Data Science, Machine Learning, and Flutter Development** to enhance students' technical skills.
 - Mentoring students in **programming, algorithms, and software development** best practices, improving their problem-solving abilities.
 - Collaborating with other departments to integrate software solutions into university-led projects, optimizing workflows and efficiency.
- **GDG on Campus** Egyptian Chinese University
Cybersecurity Team Leader Oct 2024 - Present
 - Led cybersecurity training sessions covering **Computer Network Fundamentals, Operating System Fundamentals, and Cybersecurity Essentials**, equipping students with foundational security knowledge.
 - Organizing and hosting **Capture The Flag (CTF)** challenges, simulating real-world security scenarios to strengthen students' cybersecurity skills.
 - Providing mentorship in network security, SOC, and Bug Bounty, empowering students to pursue cybersecurity careers.
- **Microsoft Chapter - ECU** Egyptian Chinese University
Cybersecurity Team Leader May 2024 - Oct 2024
 - Led cybersecurity training sessions covering **Computer Network Fundamentals, Operating System Fundamentals, and Cybersecurity Essentials**, equipping students with foundational security knowledge.

CERTIFICATIONS AND COURSES

- ISC2 - Certified in Cybersecurity (CC), Nov 2024
- Career Essentials in Cybersecurity by Microsoft and LinkedIn, Oct 2024
- Cisco Networking Academy - Python Essentials 2, Jun 2024
- Microsoft Learn Student Ambassadors - CodeCraft: Mastering GitHub Magic, May 2024
- Fortinet - Fortinet Certified Fundamentals in Cybersecurity (FCF), May 2024
- CyberTalents - Introduction to Cybersecurity Bootcamp, May 2024
- CyberTalents - Certified Linux Practitioner, Apr 2024
- Forage - Mastercard - Cybersecurity Job Simulation, Feb 2024
- Cisco Networking Academy - Cybersecurity Essentials, Jun 2023
- Cisco Networking Academy - Introduction to Cybersecurity, Mar 2023