

Dalia Elnagar

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🏠 Espoo, Finland

EDUCATION

MSc - Security and Cloud Computing (SECULO)

Sep 2024 - Present

Aalto University & KTH Royal Institute of Technology (Erasmus Mundus Joint Programme)

GPA: 5/5

Coursework include: Information Security, Network Security, Malware Analysis & Reverse Engineering

BSc - Computer Engineering

Sep 2019 - June 2024

The American University in Cairo - Graduated with Highest Honors

GPA: 3.97/4.0

Exemplary Student Award: for academic excellence, leadership demonstration, and community engagement

WORK EXPERIENCE

Aalto University

Espoo, Finland

Teaching Assistant

September 2024 – February 2025

- Assisting in **Information Security**, **Network Security** and **Platform Security** courses.
- Designed and tailored **network-focused exercises** to simulate real-world professional scenarios.
- Provided guidance and clarity on complex concepts and assignments for students.

Microsoft Egypt Development Center

Cairo, Egypt

Applied & Data Scientist

January 2024 – August 2024

- Maintained the Bing mobile app news recommendation pipeline using **C#** to increase daily active users.
- Designed and implemented a pipeline that utilizes topic modeling and key-word extraction to extract users' interests

Microsoft Egypt Development Center

Cairo, Egypt

Applied Scientist Intern

July 2022– September 2022

- Extracted domain-specific multilingual data by utilizing pre-trained language models and GMM clustering
- Reduced the computation time of the code by 3.8% by implementing a multi-process producer-consumer setup.

ACADEMIC PROJECTS

Digital Forensics & Incident Response

Spring 2024

- Conducted forensic analysis on the triage data of a compromised system to determine root cause and extent of compromise.
- Analyzed Windows Registry and Windows Event Logs using **Zimmerman's tools** and **Chainsaw**.
- Compiled list of Indicators of Compromise (IoCs) and mapped the attack to **MITRE ATT&CK framework**

WedMaster Android Application

Summer 2023

- Developed an Android wedding planner application that connects customers and vendors using Android Studio and Java, including features like registration, different application interfaces for customers and vendors, and booking system.
- Design and implemented database using **MySQL**.
- Developed **APIs** using **Node.JS** for communication between frontend and database.

Raft

Spring 2022

- Implemented Raft consensus algorithm according to this [paper](#) with **Go**. [GitHub](#)

Simple Search Engine

Fall 2020

- Developed a search engine with **C++** by constructing a Webgraph and implementing Google's PageRank [GitHub](#)

COMPETITIONS

Egyptian Collegiate Programming Contest (ECPC)

August 2023

- Ranked **first-place** amongst teams from my university and qualified to the **Arab & African Collegiate Programming Contest (ACPC)**.

iGEM Competition 2020, AUC-EGYPT Team – silver-level medal

May 2020 - December 2020

- Developed a game using **Unity Engine** to educate users on synthetic biology. [Game Link](#)

TECHNICAL SKILLS

- Programming Languages:** Python - C++ - C# - SQL - Go - Java - JavaScript
- Tools/Libraries/Frameworks:** Linux - Git - HTML - Google Cloud Platform - NodeJS - CSS - Kubernetes - Docker