ZAHRAA GHABRIES

CYBERSECURITY ENGINEER

CONTACT

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in Zahraa Ghabries

🏠 Lebanon - Beirut

SOFT SKILLS

- Time Management
- Attention to Detail
- Presentation skills
- Problem-Solving
- Verbal & Written
- Communication
- Organization
- Adaptability
- Team Work
- Leadership
- Resilience

PROFESSIONAL PROFILE

Results-driven Master's graduate in Cyber Security from Lebanese University - Faculty of Sciences, offering a robust academic foundation and hands-on experience across diverse facets of Cyber Security. Driven by a passion for continuous improvement, I am currently enhancing my skill set as a Cybersecurity Engineer by studying online courses and developing secure websites. With a focus on staying ahead of the curve, I am committed to continuous learning, adaptability, and leveraging technology to create secure and innovative solutions that address the challenges of today's digital landscape.

WORK EXPERIENCE

Penetration Testing Internship
Potech
October 2024 - February 2024

Safeguarding company resources from unauthorized access has become a critical priority in today's digital landscape. During this internship, we focused on identifying vulnerabilities by developing and training a machine learning engine. The engine analyzes the characteristics of HTTP requests and responses to effectively detect unauthorized access attempts, enhancing overall security and threat detection capabilities.

Software Engineer
Freelancer
November 2023 - July 2024

I'm currently focused on advancing my career as a Software Engineer through studying online courses and collaborating with clients based in China. In my role, I've been actively involved in client interactions, deeply comprehending their specific requirements, and crafting tailor-made software solutions.

Private Tutor
Freelancer
September 2019 - present

Throughout my career, I have provided private tutoring for university students in several courses, starting from the fundamentals of programming in C, java, JavaScript, PHP etc. to more advanced courses in Data Structures, Parallel Programming, Operating Systems, Database, and Mobile App Development .

TECHNICAL SKILLS

- Java Programming
- Python Programming
- Logic Programming (Prolog, Lisp)
- Secure Programming
- Machine learning and AI frameworks (TensorFlow, TensorFlow.js, TensorFlow Lite)
- Process Mining (Process Discovery, Conformance Checking, Enhancement of Process Models)
- Data Mining
- Full Stack Web Developer (HTML, CSS, JavaScript, PHP, React, etc.)
- Mobile App Development (Android)
- Game Development (Unity)
- Database Management (SQL)
- Cybersecurity and Ethical Hacking (Penetration Testing)

LANGUAGES

- Arabic (Native Language)
- English

Research Internship
Lebanese University - Faculty of Science
May 2022 - October 2022

Extract ABAC Rules from Object-Centric Event Logs (OCEL): Excessive access rights pose a significant security challenge for organizations, leaving sensitive information vulnerable to unauthorized access. To protect against this, comprehensive security measures are required, including access control which is a data security process that is critical to help organizations avoid data breaches and cyberattacks by protecting its resources from unauthorized access, in other words it says "who can access what". Attribute-Based Access Control (ABAC) is a dynamic and context-aware authorization model that can efficiently ensure regulatory compliance.
This research project focuses on automating the extraction of attribute-based access control rules from object-centric event logs. The aim is to replace the unreliable and time-consuming manual process with an efficient and accurate automated solution using machine learning and python.

Researcher
Freelancer
February 2023 - present

Federated Machine Learning for Secure Data Sharing: As the Internet of Things (IoT) continues to grow, secure data sharing between devices becomes increasingly important. However, traditional methods of data sharing can compromise privacy and security. Federated machine learning offers a promising solution to this problem by enabling secure data sharing while preserving data privacy. This research project aims to develop a robust federated machine learning framework

EDUCATION

- **Bachelor of Computer Science**
Lebanese University - Faculty of Sciences
Grade 62.92

- **Master of Science in Cybersecurity**
Lebanese University - Faculty of Sciences
Grade 72.06

CERTIFICATES

1- Device-based Models Using TensorFlow Lite (Coursera): Given the limitations in computational power often encountered by mobile devices, the role of TensorFlow Lite becomes prominent. TensorFlow Lite enables the transformation of comprehensive TensorFlow models into streamlined versions which are better suited for deployment on constrained hardware.

Click here to see the Certificate

2- Browser-Based Models with TensorFlow.js (Coursera): This course taught me how to train machine learning models in the browser and how to use them to perform inference using JavaScript. In addition to taking a model that has been trained in TensorFlow and run it in a web browser using TensorFlow.js.

Click here to see the Certificate

3- Responsive Web Design (FreeCodeCamp): This course is designed to provide beginners in web development with a comprehensive foundation in HTML and CSS. It adopts a practical approach which allowed me to learn and apply these fundamental technologies through hands-on exercises and projects.

Click here to see the Certificate

4- JavaScript Algorithms and Data Structure (FreeCodeCamp): The course has provided me with a step-by-step learning approach, starting from the basics and gradually progressing to more advanced topics. I have learned how to write clean and efficient JavaScript code, organize functions, and leverage various JavaScript libraries and frameworks.

Click here to see the Certificate

5- Front End Development Libraries (FreeCodeCamp): This course has provided me with a comprehensive exploration of various libraries that are essential for front-end web development. It introduced me to a wide range of powerful tools and frameworks, including jQuery, Bootstrap, React.js, and Redux.js, which have greatly enriched my understanding and capabilities in building dynamic and interactive websites.

Click here to see the Certificate

6- Data Visualization (FreeCodeCamp): This course has been instrumental in introducing me to the world of data visualization and empowering me with the skills to create stunning graphics using the d3.js library.

Click here to see the Certificate

OTHER ONLINE COURSES

Introduction to Internet of Things (IoT) (edX): Throughout the course, I was introduced to the transformative world of the Internet of Things (IoT) and its ability to simplify and enhance our lives. It provided me with a deep understanding of the potential of IoT to revolutionize numerous industries, making them more efficient, effective, and ultimately improving the quality of life for people around the world. **(Required for Federated Learning Research)**

Cyber Security and Privacy in Internet of Things (IoT) (edX): While the Internet of Things (IoT) has undoubtedly made our lives more convenient and efficient, it has also introduced new, large-scale privacy and security risks. This course delves deeply into these potential risks, providing a comprehensive overview of the ways in which IoT devices can compromise our personal data and security. Through this course, I gained a deep understanding of the various types of IoT-related privacy and security threats, and the methods by which these risks can be mitigated.

Process Mining: Data science in Action (Coursera): This course gave me the required knowledge and skills needed to become an expert in process mining and its powerful techniques of process discovery, conformance checking, and enhancement. These techniques are designed to help organizations optimize their processes, improving their effectiveness and efficiency, ultimately leading to improved reputations. By utilizing these techniques, organizations can gain valuable insights into their processes, identifying areas of improvement and implementing changes that streamline operations and improve overall performance. **(Required for Extracting ABAC Research)**

PROJECTS

Face Recognition

The focus of this graduation project was to utilize machine learning for facial recognition, allowing a camera to accurately identify individuals and their corresponding names. Its primary goal was to monitor attendance in university classes and ensure that professors were present for their lectures on time.

Library Management Web Application

This project was developed to streamline project management in Lebanon, allowing libraries to participate and customers to purchase or rent books online from any library. The web application displays information about all libraries and their branches and manages employee, manager, and customer information for each library.

Library Management Mobile Application

In addition to the web application, we also developed a mobile application of the library management system to provide users with a more convenient and accessible way to rent and purchase books from any library using their mobile devices.

Ultimate Tic-Tac-Toe

The Ultimate Tic-Tac-Toe game is a unique version of the classic game that consists of nine smaller grids, each with its own tic-tac-toe board. The game was created using the Unity platform, and is playable in both single-player and multi-player modes, allowing players to compete against each other or against the computer

Maze Death

The objective of this project was to develop a fun and engaging Unity 3D game. Our team created a maze game where the player character navigates through a challenging maze in order to escape from a horde of zombies. The player must defeat zombies along the way. The game provides an exciting and enjoyable experience that keeps players entertained and challenged.