

# Shourouk Assal

Beirut, Lebanon

(961) 76 588 459

[Shouroukassal@gmail.com](mailto:Shouroukassal@gmail.com) - <https://lb.linkedin.com/in/shourouk-assal-4bb363226>

Highly motivated recent engineering graduate with a robust foundation in Machine Learning, data analysis, and programming. Possesses strong problem-solving abilities, effective communication skills, and a proven track record of teamwork. Eager to contribute to innovative projects in dynamic, technology-driven environment.

## Work Experience

---

### Data Engineering Intern, Thales, Beirut

March 2024 – September 2024

- Data mining process, importing data into data warehouse and use ETL tools
- Building a model, defining relationships, and creating cubes in SQL Analysis Services
- Using Power BI model for analysis and visualization

### Information Technology Security Analyst Intern, Touch, Beirut

October 2023 – November 2023

- Getting proficient in fundamental networking concepts, and strong understanding of security principles
- Exploring threat hunting and log analysis, and email security gateway
- Developing patch management skills using WSUS

### Technical Graphics Intern, Engineering Marketing International EMI, Beirut

November 2023 – January 2024

- Building Graphical User Interfaces
- Real Time data visualization using PI vision Software
- Working on ARAMCO Saudi Arabia and QAPCO sites visualization and navigations

### Telecommunication Engineering Intern, Ogero, Beirut August 2022 –

October 2022

- Getting familiar with exchange designs concerning civil work, primary and secondary cables, cabinets and main distribution frame
- Studying the deployed copper cables used in ADSL, VDSL, and HDSL technologies, their characteristics, and design specifications of the public switched telephone network PSTN
- Exploring the telecom services through fiber cables

## Education

---

### Masters in Computer and Telecommunication Engineering Lebanese University,

Hadath Lebanon Sep. 2019 – sept 2024

### Masters in Internet of Things and Smart Systems Engineering

Lebanese University, Hadath Lebanon Nov. 2023– sept 2024

## Professional Experience & Projects

---

### Hate Crime Prediction — Machine Learning December 2024

- Explored the societal phenomena of hate crimes through a multifaceted approach incorporating machine learning models
  - Tested algorithms such as Linear Regression, Random Forest Regressor, Decision Tree Regressor, and Gradient Boosting Regressor
  - Conducted correlation analysis to understand the relationships between different attributes
  - Employing Data cleaning techniques, normalization, and data augmentation to enhance data quality and model performance

Urgent Communication Network for Emergency Cases in Lebanon

January 2024

- **The Urgent Communication Network for Emergency Cases in Lebanon project is dedicated to revolutionizing communications the implementation through the implementation of cutting-edge technologies and protocols**
  - Utilized the Constrained Application Protocol CoAP for efficient communication among low power devices
  - Employed 2 types of nodes strategically throughout the network to enhance communication reliability and confidentiality
  - Implementing advanced security measures to safeguard communication integrity and confidentiality
  - Leverage custom microcontrollers and Ad hoc On Demand Distance Vector AoDV routing for adaptability and resilience in emergency scenarios

Frozen Lake Game using Reinforcement Learning

March 2024

- **The project Focused on researching and optimizing RL techniques for the frozen lake game, emphasizing the integration of a reward mechanism to drive successful navigation and goal achievement**
  - Implemented Q- Learning algorithm to learn optimal policies in Frozen Lake environment
  - Incorporated epsilon greedy algorithm to balance exploration and exploitation during training
  - Addresses the slippery case in the frozen lake environment using a stochastic transition model
  - Developed Visualization to monitor agent performance and learning progress (utilizing matplotlib)

Key Skills

---

- **Programming (and Scripting) Languages //** SQL, Python, DAX Programming, C, C++
- **Machine Learning //** Data cleaning and ML algorithms
- **Database Tools //** SQL, SSAS, SSMS, SSIS
- **Leadership**
- **Critical Thinking**
- **Time Management**
- **Teamwork**

Languages

---

- Arabic (Native); English (Fluent); French (Fluent)