

ZAHRAA IBRAHIM YOUNES

BEIRUT, LEBANON

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OBJECTIVE

Seeking a position in the communication field where I can develop my skills and put my learning into practice. I am dedicated, motivated and enthusiastic by new challenges and tasks and take excellent approaches to achieve the desired.

EDUCATION

- **2013 - 2015 Lebanese International University (LIU) - Saida, Lebanon**
Master of Science (M. Sc.), Computer and Communication Engineering.
Cumulative GPA: 3.47/4 (Honor List), Major GPA: 3.5/4 (Distinguished)
- **2009 - 2013 Lebanese International University (LIU) - Nabatieh, Lebanon**
Bachelor of Science (B. Sc.), Telecommunication Engineering.
- **1995 - 2009 Collège Notre Dame des Sœurs Antonines - Nabatieh, Lebanon**
Life Science (Science de la vie).

TRAINING

- **August 2013 – Sept 2013 Beirut - Rafic Hariri International Airport Beirut, Lebanon**
Overview of RADAR, ILS (Instrument Landing System) including: Localizer, Glide and DME (Distance Measurement Equipment), DVOR (Doppler VHF Omni Directional Range), VCS (Voice Communication System), Voice and Data Recording System and AFTN (Aeronautical Fixed Telecommunication Network).
- **October 2013 – June 2014 Lebanese International University Nabatieh, Lebanon**
Assistant Instructor: Helping Engineering students by re-explaining what was not clear for them and helping them to solve exercises with ease.
- **June 2016 – September 2016 OGERO Telecom Saida, Lebanon**
Overview of the basics of telecommunication: cables' types, connection techniques, installment's equipment, problems' detection, errors' solutions.

CERTIFICATIONS

- **CCNA 1 (CISCO Certified Network Associate): Introduction to Networks**

Networking basics: Introduction to the architecture, structure, functions, components, and models of the Internet and computer networks. As well as the principles of IP addressing and fundamentals of Ethernet concepts, media, and operations. In addition to building simple LANs and performing basic configurations for routers and switches, and implementing IP addressing schemes.

PUBLICATIONS

- **Fountain Codes: LT and Raptor Codes Implementation**
International Journal of Engineering Research and Applications (IJERA), January 2017

In this paper, the design of the fountain codes is explored with its implementation of the encoding and decoding algorithm so that the performance in terms of encoding/decoding symbols, reception overhead, data length, and failure probability is studied.

SKILLS

- **Programming Languages skills:** C, C++, Java, MATLAB, Microcontroller Assembly, and MIPS Assembly.
- **Software development:** NetBeans, Visual Studio, GUI based applications, Android.
- **Database Systems:** MySQL, Data Mining (WEKA).
- **Networking:** Socket programming, P2P programming, Packet Tracer, OPNET.
- **Tools:** Microsoft Office, Proteus, ArcMap.
- **Knowledge of:** Cryptography and advanced computer security, Computer and Communication Networks, Wireless communications, Mobile communications (GSM-2G, 3G and 4G-LTE), Internet routing protocols and standards, Transaction processing, Distributed systems and distributed databases, Digital and Advanced Digital Communications, Multimedia Networks, Database System Principles, Embedded systems and Wireless sensor Networks, Geographic Information System (GIS), Methods of Optimization and Engineering Economics.

MAIN PROJECTS DONE

- **Master Thesis: Fountain Codes:** A research and C program of the two fountain codes (Raptor and LT) which are random error correcting codes designed for efficient and reliable data delivery over erasure channels such as internet:
 - A digital fountain is rateless in a way that sender can send limitless number of encoded packets. The receiver doesn't care which packets are received or lost as long as he gets enough packets to recover the original data.
 - The design of the fountain codes was explored with its implementation of the encoding and decoding algorithms and performance in terms of encoding/decoding symbols, reception overhead, data length and failure probability.
- **Senior Project: Exam Generator:** Java GUI that included designing and developing an Exam Generator which allows the instructors to add, delete, update questions to a single database and to generate an exam according to topic, type, number of questions, time needed, template insuring non-overlapping questions in less than 5 min.

LANGUAGES

- **Arabic:** Native Language.
- **French:** Spoken, read and written fluently.
- **English:** Spoken, read and written fluently.

RERERENCES

All available upon request.