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PROFILE: -

Current Master's degree student in Tampere University of Technology in the field of Wireless Communications and RF systems in addition to Embedded Systems Design and Programming skills with previous work experience in the field of mobile networks for one year.

I am seeking a summer training or part-time position in the field of Telecommunication and HW deisgn.

EDUCATION: -

Tampere University, Tampere, Finland. (ECTS 35/120)   [2019-]
Master's Degree in Electrical Engineering (Wireless Communications and RF Systems).

Faculty of Engineering Alexandria University, Alexandria, Egypt.   [2011-2016]
B.Sc. in Electrical Engineering (Communications and Electronics Department).
Overall grade: **83.4%** (very good with honours). Ranked 18th [**top 5%**] out of 380 of my classmates.

- Graduation project: Wireless Sensor Network applications in smart city.

- Extra projects:
    - **Alien Game on Xilinix PYNQ-Z FPGA board (*)**
      A game of shooting the alien with a gun implemented using digital logic blocks on "HDL Simulator" and then synthesized on the FPGA.
    - **Connect Four Game using Python (*)**
      The famous game "Connect Four" using Python GUI.
    - **Automatic control of ball on a plate**
      keeping a ball balanced on a square plate using position feedback from touch screen to control motors to balance the ball on top of the plate.
    - **Collision avoiding robotic car (using only logic gates):**
      Using logic gates, IR sensors, motors and motor driver IC assembled on a "PCB".
    - **Serial Data Receiver using VHDL (*)**
      Serial data receiver with (parity) bit and (output valid) bit using VHDL.
    - **Image compression using the Haar wavelet transform:**
      Image compression using MATLAB by removing redundant information from images.
    - **18 MHz Transmitter on Breadboard (*)**
      Audio transmitter in 18 MHz band that achieved transmission range about 1 km.

  (*) More details about these projects are included in the website.

WORK EXPERIENCE: -

Nokia Egypt – LTE NPO RNP Engineer – Cairo, Egypt.   [Dec. 2018 — Aug. 2019]

- Radio network planning (coverage and capacity) using software such as **Atoll** and **TEMS**.
- Participated in Wi-Fi planning, developing a practical propagation model on **Atoll** software in order to perform RSSI prediction and optimization based on network access nodes' locations and I have a basic idea about **Ekahau Site Survey** software.

Etisalat Misr – RF Planning Engineer – Cairo, Egypt.   [Jun. 2018 — Dec. 2018]

- Planning and designing radio network parameters for new site creations (frequencies and BSIC in GSM – Scrambling Codes in UMTS – Root Sequence Index and PCI in LTE).
- Network KPIs monitoring and optimization [Call Drop Rate, TRX availability etc.].

Air Defense Academy – Teaching Assistant – Alexandria, Egypt. [Dec. 2017 – Feb. 2018]

- Introduced new lab experiments on FPGA "Spartan-3" kits during military service.
- Prepared paper exercises and lab sessions contents for courses such as "Digital Logic Design", "Microprocessors", "Embedded Systems" and "Transmission Media".

Technical Skills: -

- **Embedded systems design:**
  - **FPGA:** Very good (Implemented multiple projects on PYNQ and Spartan-3 Xilinix kits).
  - **Intel 8051 Microprocessor** and **Intel 8086 Microprocessor:** Good.
- **Hardware Description Languages (HDL):**
  - **VHDL:** Very good.
  - **SystemVerilog:** basic.
- **Programming skills:**
  - **Python:** Good. (scored 5 in Programming 1 course in fall 2019).
  - **C++:** Intermediate. (previous experience as well as attending Programming 2 currently).

- **MATLAB:**
  Very good experience with MATLAB in **signal processing** and **communication systems** fields.
- **Electronic circuits simulators (Multisim and OrCAD)**
- **Mobile Communication Networks:**
  Excellent knowledge of mobile communication systems such as (GSM, UMTS, LTE and 5G).
- **Operating systems:**
  Previous experience with Linux (CentOS and Ubuntu).
- **Radio Network Planning tools:**
  Good experience with **Atoll**, **TEMS.**
  Basics about **Ekahau site survery**.

Extracurricular Activities: -

- Experience in working with organizations inside Finland as I am the **Local Committee President for the term 2020-2021 in AIESEC Tampere** (**AIESEC** is a global youth organization https://aiesec.org/).
- Leadership and responsibility as I was appointed the *class representative* 2 times in college as well as my role in **AIESEC** since I am responsible for managing the organization entity on a local level.
- Team player and excellent communication skills as I was a volunteer in an NGO called "**Youth love charity**" in Egypt in which I was helping raise fund to support people in need, for example we distributed blankets for people in need in small villages in the winter in Egypt.

Language Skills: -

- Arabic   Native
- English   Fluent   CEFR Level **C1**   (Scored 8 in IELTS)
- Finnish   Basic   CEFR Level **A1**
- Italian   Basic

Other Information: -

- **Military Service:** (October 2016 – December 2017)
  Teaching Assistant in the Egyptian Air Defense Academy.
- **Hobbies & Interests:** Playing and watching Football (Huge and old fan of Arsenal and the English Premier League), listening to music (especially classical music), swimming, travelling and going to the gym.
- **Residence Permit:** I have a valid residence permit in Finland until August 2020.
- **Awards and recognitions:**
  1) Certificate of recognition from Etisalat Misr as "Hero of performance" in quarter 3 of 2018.
  2) Certificate of appreciation from the Egyptian Army for my time as a TA.
  3) Recognized by Alexandria University in "Loyalty and Excellence" for my grades in all years especially in 2nd year when I got 87.5% (Excellent) in my overall grade.

References: -

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