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# ACADEMIC QUALIFICATIONS

Computer Science Engineering's Degree

Tunis, Tunisia

Khalil

**THABET** 

September 2020 - September 2023

National School of Computer Sciences - Manouba

Undergraduate Studies in Mathematics and Physics

Tunis, Tunisia

September 2018 - September 2020

Faculty of Mathematical Physical and Natural Sciences Of Tunis

**Baccalaureate Degree In Mathematics** 

From 2014-2018

In 2018 with 'Good average' grade

# COMPUTER AND LANGUAGE SKILLS

	Beginner	Intermediate	Advanced
Development	Bash, GStreamer,ROS, Flask, STM32, Golang, FPGA, OpenMP	Android, Java, Arduino, CUDA, C++,C, VHDL, Javascript, ReactJs	Assembly, QT, Python
Network		PacketTracer, Wireshark	
Modeling	Method B, BPMN	UML	
Tools	Docker, Tensorflow, Kubernetes	OPENCV	
Methodology	2TUP, SCRUM	Waterfall, V-Shape Model	
DMBS	OracleDB	MySQL, MongoDB	
Languages	German		French, English, Arabic

# PROFESSIONAL EXPERIENCE

# **GPU Implementation of Spike neural Network using CUDA** MyWeb

June - August 2022 (2 months)

- Study of the GPU architecture and familiarization with the CUDA ToolKit and Jetson Nano TX2.
- Development of an N-dimensional Array library with C++ with the different types of algebraic operations.
- Optimizing different algorithms present inside **Pytorch Library** for n dimensional computations.
- Developed and executed test plans and analyzed test results with GoogleTest Library and CMAKE platform.
- Optimized training up to 60% less time for images more than 1000 pixel images width.

# **Face Recognition Model Based on Spike Neural Network** School Lab

February - April 2022 (3 months)

- Research on the different techniques used up to day for face detection and face recognition.
- Review of the existing solutions using SNN and extracting comparative tables.
- Created a Face Recognition Model with SNN using Pytorch with 62,91% accuracy.
- Built integral Data Preprocessing Pipeline for converting input data into time varying sequence.
- Developed a Detector Model using **OPENCV** and **Tensorflow**.

# **PROJECTS**

#### Medical Practice Project

From April 2019 - May 2019

 Built a CLI to manage and monitor resources in a medical practice using **Python** to interact with the operating system.

# Belote Card Game project

From March 2021 - May 2021

- Development of a multiplayer card game using object-oriented programming and integration of a graphical user interface with Qt and **C++** to facilitate the use of the application.
- Web Application For The Management Of a Driving School From August 2021 - September 2021

 Created with ReactJS and MongoDB to manage and record resource activities through an admin interface, including HR, accounting and financial management, enabling users to access an interactive interface to review their tasks and progress.

### Algorithm visualizer

From March 2022 - September 2022

 Developing Pathfinder and sorting Algorithm Visualizer based on multiple algorithms using ReactJS to visualize the process of the algorithm.

# Drone Simulation using neural network Genetic algorithms

 Designed and Implemented a simulator for a 2D-QuadCopter for moving to desired target using Pygame and NEAT-Python.

#### COMMUNITY LIFE & ACHIEVEMENTS

## ENSI Junior Entreprise

- Active Member from 2020 to 2021
- President from August 2021 to October 2021

# Junior Entreprise Of Tunisia

Jan 2021 - Mar 2021

Organization committee of the JTED : Junior Tri-Hybrid Evolution days.

#### **Competitive Programming Club**

October 2020 - Currently

- Active Member
- o TCPC Finalist 2022

### Tunisian Finals Of Microsoft's Imagine cup 2017

Reaching local Finals with the project of an entertainment adventure game quest (Mobile app) inspired from the new solar system discovered by NASA, Trappist-1. The app was developed using **BotFramework** and Android Studio then deployed on Microsoft Azure.

# Codingame

- o Ranked 6700th MAD POD RACING Challenge Gold League
- Ranked 2804th Spring Challenge 2021 Silver League

# **CERTIFICATIONS**

- Fundamentals of Accelerated Computing with CUDA Python(Nvidia)
- Using Python to Interact with the Operating System (Coursera)
- Python Classes and Inheritance -University of Michigan (Coursera)
- Neural Networks and Deep Learning DeepLearningAl (Coursera)
- Parallel Programming in Java Rice University (Coursera) Introduction to git and github - (Coursera)

#### **HOBBIES**

- Running
- Playing Chess Writing Articles (Quora - Medium)
- Solving Coding Problems (Codingame Codeforces)