Hachem **SFAR**

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Edu**cation**

Universität Passau
Passau, Germany

MASTER IN COMPUTER SCIENCES
October. 2018 - PRESENT

Subjects: ADVANCED DATA SCIENCE, DATA FUSION

Higher School of Communication of Tunis (SUP'COM)
Tunis, Tunisia

DIPLOMAS COMPUTER SCIENCE ENGINEER
Sep. 2015 - Sep. 2018

Subjects:
Machine learning
Probability and stochastic processes
Programming languages(C/C++/Java)
Linux
UML

Preparatory Institute for Engineering Studies - El-Manar (IPEIEM)
Tunis, Tunisia

PREPARATORY CLASSES FOR ENGINEERING SCHOOLS (RANK:20/1200)
Sep. 2013 - Jun. 2015

Subjects:
Computer Science
Mathematics
Chemistry
Physics
Technological Engineering Sciences

Exp**erience**

Attila AI
Tunis, Tunisia

GRADUATION INTERNSHIP
Jan. 2018 - May. 2018

Development of an intelligent recommendation system that recommends products to meet the interests of each customer in the next months.
keywords: Python, sklearn, keras, Machine Learning Algorithms: {Logistic regression, Naive Bayes, DecisionTree, Random Forest, Neural network}

Sagemcom
Tunis, Tunisia

STUDENT JOB
Oct. 2017 - Dec. 2017

Develop a simple desktop application to manage registration of the visitors using csharp programming language and mysql database.
keywords: C#, MySQL

WEVIOO
Tunis, Tunisia

SUMMER INTERNSHIP
Jul. 2017 - Aug. 2017

Solution development for the follow-up of the elderly which is useful (especially for those who suffer from Alzheimer's)
keywords: HTML, Javascript, Google map API, Node-red, Arduino/Raspberry pi, GPS shield, Temperature sensor, Arterial pressure sensor

Tunisie Telecom
Mahdia, Tunisia

TRAINING OF INTEGRATION IN PROFESSIONAL LIFE
July. 2016 - July. 2016

Discover the working environment within Tunisie Telecom and the different techniques of management of the Telecom network.

Ski**lls**

Domains: Machine Learning, Web Development, Software Development
Coding: Python, C/C++, C#, Java, HTML, CSS, JavaScript, React JS, Node JS
Databases Management System: MySQL, MongoDB
Operating Systems: Linux, Windows
Languages: Arab *mother Tongue*, French *B2:TCF*, English *B2:755/990 TOEIC*, German *Beginner*

Certifications

Deep Learning *Coursera*
Nov.2018

Data Scientist with Python Track *Datacamp*
Dec.2017

French knowledge test (TCF) "B2 Level" *French institute of Tunisia*
Dec.2017

Test Of English for International Communication (TOEIC)"B2 Level" *AMIDEAST*
Jun.2017

Trainings

IntilaQ Tunisia *Tunis, Tunisia*
LEARNER - DATASCIENCE ACADEMY *June. 2018 - August. 2018*

The goal of this program is to create a generation of data scientists ready to tackle and solve tomorrow's challenges.
Participants will learn the basics of data science and they will learn how to apply classroom examples using real data.
Program:
- Module 1: Prerequisites
- Module 2: Data Preparation
- Module 3: Web scrapping
- Module 4: Machine Learning
- Module 5: Deep Learning

WoMa, Fabrique de quartier *Paris, France*
TRAINING *June. 2017 - June. 2017*

Training in digital manufacturing:
- 3D design(Solidworks,autodesk fusion 360)
- 3D printing
- milling and laser cutting

Volunteer Experience

Member of the organizing committee - Tunisian Collegiate Programming Contest *Tunis, Tunisia*
ACM, ASSOCIATION FOR COMPUTING MACHINERY *Mar. 2017*

Member of the organizing committee- Science Fair *Tunis, Tunisia*
YOUTH FOR SCIENCE FOUNDATION *Jan. 2017*

Organization of the 7th Scientific and Technological Fair, dedicated to young college and high school students.
This edition saw the participation of more than 240 participants and 50 coaches who will present their projects (120 projects in total) before a jury of university professors and researchers.

Animator - Science and Technology Camp *Monastir, Tunisia*
YOUTH FOR SCIENCE FOUNDATION *Aug. 2016*

More than 80 young people, 20 volunteers, university professors and 24 animators responsible for 8 workshops participated in this camp.
I had the opportunity to be the workshop facilitator on the 3D printer by doing a training on Solidworks.

Organisor - Hour of Code *Beja, Tunisia*
Feb. 2016

Within the framework of the PACTE Project (Projet d'Apprentissage de la Communication et du Travail en Equipe), Organization of the "Hour of Code" event for young schoolchildren in the region of Goubellat (Gouvernorat de Béja).
The aim is to help pupils by giving them an introductory training of the basic concepts of computer programming.

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Pro**jects**

Udemy Platform   *Passau, Germany*
May.2019

Publishing my first MOOC in Udemy website which is about web scraping by using beautiful soup library. In this course, the students will understand fundamentals of this field, have a HTML review and learn the basic of beautifulsoup and requests libraries.
Course Name: Learn Web Scraping in Python with BeautifulSoup Library

Java Projects   *Passau, Germany*
Dec.2018

1/Device Converter:
Developing a change currency application using the web scrapping technics. The user needs to choose two currencies from a list and enter the amount of money. Our application gives an up to date result using web scrapping methods.
Keywords: Java, JavaFX , JSoup
2/Resume Search Engine:
Developing a Graphical Human resource System to automatize finding skills (key words) in a Candidates Resume : the user uploads the CV and enter a set of key words, our project will verify one by one and give the found skills.
Keywords: Java, JavaFX, Apache Tika
See project

Web Scrapping projects   *Tunis, Tunisia*
June-Oct. 2018

1/Beautiful Soap Library:
Extracting differents information(English name,Jap name,Ranking,Episodes Number...)   about the top 14k animes by using "myanimelist.net/topanime.php" website and arrange them in one dataframe.
Extracting Country name & passport power for all countries from "passportindex.org/byRank.php" website. Then, plot this data on map using Plotly library.
2/Scrapy Library:
By putting the link any manga chapter on "mangareader.net". The script will download all images files of the manga. Then, fusionne them together in one pdf by using FPDF library.
See project

Russia 2018 - International Prediction Challenge   *Tunis, Tunisia*
May-June. 2018

This project was developed within a competition organized by university Paris-Dauphine | Tunis.
In this competition, I resorted to the given file and added extra data from various sources, for example, I used score power from the FIFA website, and the latest results from the 2018 friendly games as I couldn't find enough data from the given CSV file I also used the power information for each team from the PES video game (def power, speed power, mid power, attack power...)
During the data preprocessing phase, I transferred the result of each game between the national teams:
Column result:
1: If the Home Team won the game
0: If it's a tie
2: If the Away Team won the game
I created new features which consist of the ratio of power of each team's information.
Then, I trained my model and I used as input the ratio features and as output the result of the previous games (0, 1, 2)
Furthermore, I used the same model to predict the probability of win, draw and lose. I did the same process for each year (2015, 2016, 2017 and 2018)
In the end, I combined and gave a weight for each submission of the previous years to build one final submission file.
Keywords: Python, Sklearn, Web Scrapping, Logistic Regression, Bootstrap averaging
See project

Web solution to locate hospitals as well as the most current way to go   *Tunis, Tunisia*
Sep-Oct. 2018

Develop a web solution that offers the user to locate a hospital and identify its services as well as the most current way to go.
Keywords: HTML , Javascript , Google map api

Con**tests**

Participation - 4th SMART GREEN ISLAND MAKEATHON   *Las Palmas, Gran Canaria, Spain*

Feb. 2019

This event had place on 20 to 23 Februrary 2019 in Las Palmas, Gran Canaria, Spain. This edition saw the participation of more than 250 participants from 70 different universities and 21 countries in which each team should find an innovative idea and create a prototype within 4 full days.

Our product was a smart watch dedicated for swimmers. It extracts many parameters like geolocation, arterial pressure and heartbeat. According to these extracted values, it detects if the swimmer is in danger or not and if he is, the smart watch sends an alert to his family/friends' mobile application that contains his geolocation and his life jacket will inflate automatically to avoid that he drowns.

DeepHack - AI Hackathon   *Tunis, Tunisia*

May. 2018

The competition was organized on 11 March 2018 by "facebook developer circle | Tunisia" with the participation of more than forty contesters.

We are required to build a model that predicts the hourly taxi ride demand in New York City based on Population Census Blocks on June by using the taxis demand in the previous months (from January 2015 to May 2015) for each block.

By the end, I was ranked the 6th among the 45 participants.

Participation in the 10th edition of the challenge entrepreneur   *Tunis, Tunisia*

Mar. 2017

Our project called TT'app (Tunisian Transport Application) will allow public transport users to locate buses in real time using crowdsourcing data (collected by GPS from smartphones carried by bus passengers and metros) .

To detect the veracity of its information, we will implement an algorithm which gives veracity scores for each signal (depending on its geospatial location, the time and place of sending the signal to check if it belongs to the cluster of the group, users of the same means of transport).

If the degree of similarity of the signal is greater than a threshold, the user will have a score bonus otherwise it will have a penalty in decreasing some of these points. Afterwards, he can consume some of these points to locate the bus / metro that is waiting or to have it transferred as an internet bonus.

Thanks to iBeacon technology, our product will be profitable. When a bus or subway passes the premises of one of our partners, this technique will detect the users of the application and will send them Push notifications containing the promotions and offers in the store.

at the end, our team was ranked the 4th among the 35 teams.

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