

- My name is Mohamed Algebali Almoazin.



- I am a graduate of faculty of engineering , department of computer science and automatic control, Tanta university (2016/2021).
- I have more than 4 years studying Machine learning , Deep Learning, Computer Vision, Natural Language Processing and Reinforcement Learning.
- I am professional at Python programming language (5 years of hands-on Exp.).
- Also I am very good at Sklearn library to build ML models and TensorFlow framework to build DL models.
- I am very well at English.
- I have taken most of ML, DL and RL courses online by Coursera platform.
- Here's is some of my work :
 - <https://github.com/Mohamed01555>
 - https://drive.google.com/drive/folders/0B_mEL5jN5iaNfjdBVWFTODQxUFpyeWxvRjRMZ2xtREhXOWJMeWx6VEc0Tm9vWGxBbzhoEws?resourcekey=0-a0NTO1WoJWi5GnehIMKINQ&usp=sharing
 - <https://drive.google.com/drive/folders/1U4nGGimgjUOmcAhuqC3wmKPeKGAaqYz0?usp=sharing>

My Experience in NLP

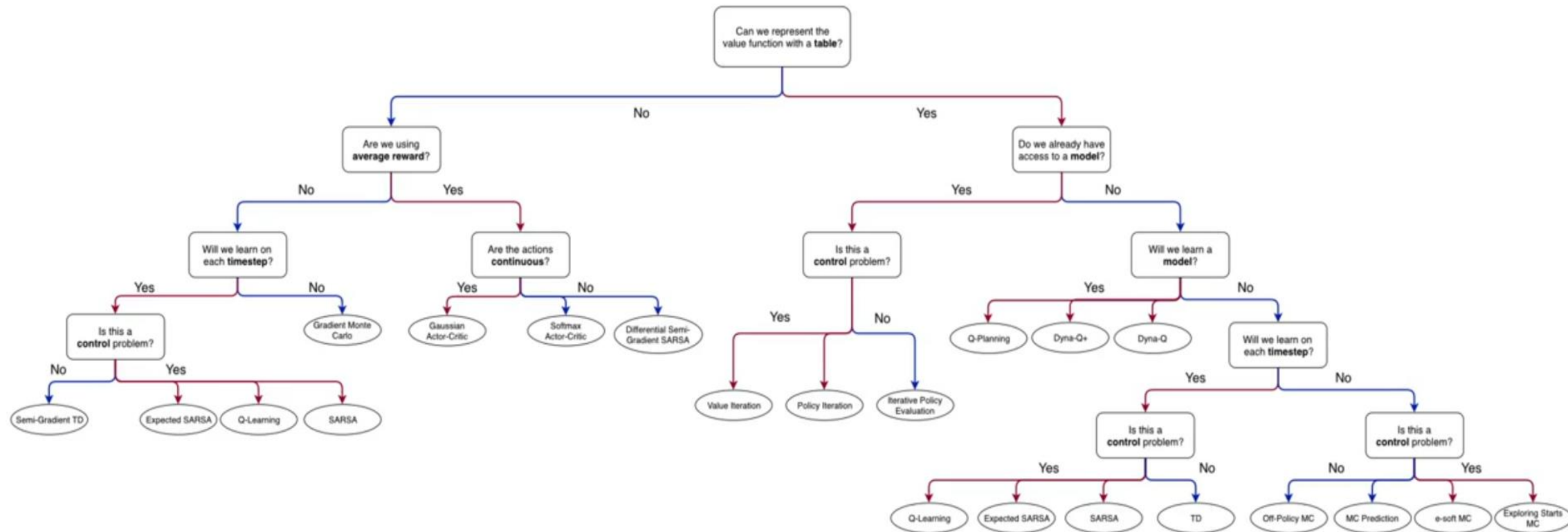
- First I used statistical models like n-gram models for language modeling, also for next-word prediction and in completing words.
- After that I learned sequence models like RNN due to the inherent sequence dependency in NLP problems (i.e. each word depends typically on the previous one).
- Then GRU and LSTM to handle the issues of vanilla RNN like vanishing gradients.
- Then attention models like Transformers to handle LSTM issues like vanishing gradients in long sequences, the inability of parallelizing training.

- Most of the progresses in NLP applications are based on Transformers like BERT and GPT because
 - **Non sequential:** sentences are processed as a whole rather than word by word.
 - **Self Attention:** this is the newly introduced 'unit' used to compute similarity scores between words in a sentence.
 - **Positional embeddings:** another innovation introduced to replace recurrence. The idea is to use fixed or learned weights which encode information related to a specific position of a token in a sentence.
- Although Transformers are very efficient in sequence modeling, but they consume a lot of memory and computations in very long sequences in apps like Chatbots ,so I read Google Reformer and Facebook Lenformer research papers that enhance the Transformers capability to process very long sequences. Also I implemented Reformer using trax library.

My experience in Computer Vision

- Most of progresses in computer vision is based on convolutional neural networks , so I learned almost every thing about it .
- I did a lot of projects in CV like my graduation project(Lighthouse)
This is the link : (<https://github.com/Mohamed01555/lighthouse-1>)
- Also I did an Arabic OCR system using pytesseract framework.
- I also learned YOLO algorithm for object detection and applied it to a video in the **computer vision** course .
- Finlly I learned how GANs work and I am in my way to take the GAN specialization at coursera.

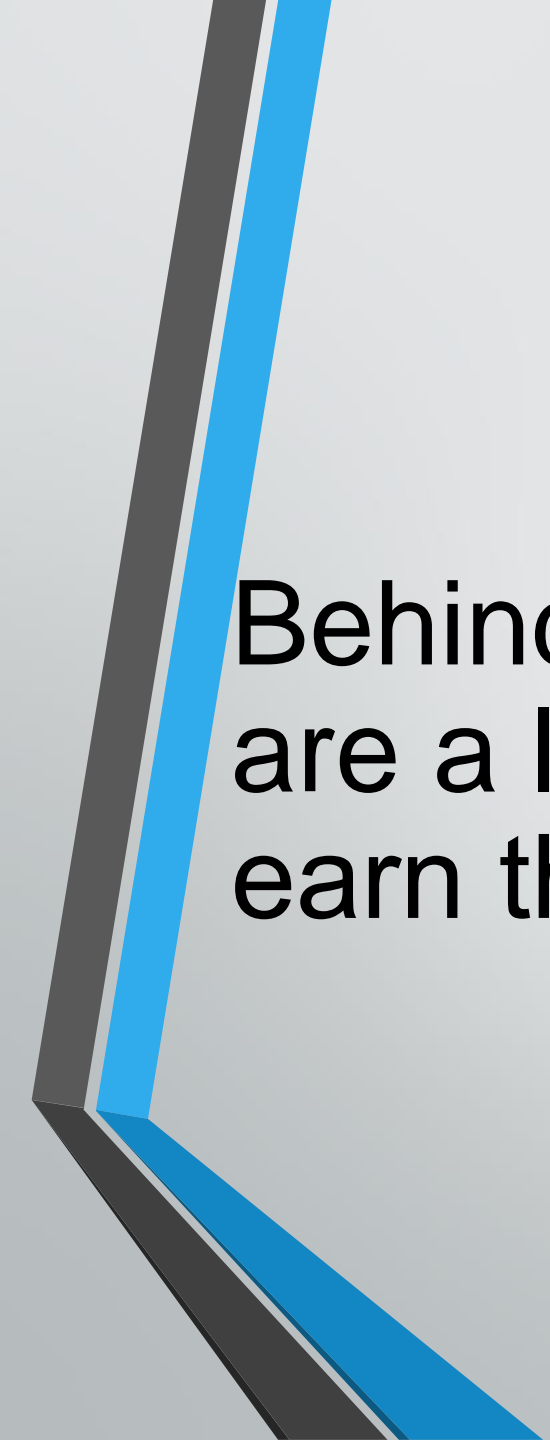
My experience in Reinforcement learning



I studied all of these algorithms in Coursera RL specialization and implemented a project on each.

In field of Machine learning

- I learned ML algorithms like linear regression , logistic regression decision trees ,random forests, support vector machines and more...
- All of the previous models requires a large amount of data to give good results, What if I don't have this amount ?!!
- Because of this, I learned **Bayesian ML at Coursera** to handle this issue by learning the distribution the data came from and generate more samples. Algorithms like MCMC(Markov chain Monte Carlo) can do this.



Behind the following certificates , there are a lot of projects I have implemented to earn them, let's start.....

In field of Computer Vision

- Here are some examples of taken courses in DL:
 - **(computer vision)**
<https://coursera.org/share/423cbb1043d970712a05efd6f7779901>
 - **(Deep learning in Epsilon AI institute)**
<https://drive.google.com/file/d/1sfdSuJ-kNvGUWaAJ5d7Om7Yi51HYDWvs/view?usp=sharing>

In field of Machine Learning :

- **Machine learning course in Epsilon AI institute:**

<https://drive.google.com/file/d/15ls1xTjsskBaipKX3XYElNUt-Fg5s7h6/view?usp=sharing>

- **Bayesian ML at Coursera:**

<https://coursera.org/share/d61ceeeag924de50c3f4b8e3b5foccbac>

In field of Natural Language Processing

- **Natural Language Processing with Probabilistic Models:**
 - <https://drive.google.com/file/d/1xocUGXNZOskZe7IntYepZMh71pXVQdse/view?usp=sharing>
- **Natural Language Processing with Classification and Vector Spaces:**
 - <https://drive.google.com/file/d/1A1VOQiRQgctPvukBOrYQFKOWzegopZb/view?usp=sharing>
- **(Sequence models)**
 - <https://coursera.org/share/b3ad6596bcc39584699fd9e7758cf05c>
- **And other courses without certificates.**


In field of Reinforcement Learning

- **Sample-based learning methods:**
 - <https://coursera.org/share/98a1a8292bfc7e978c8b5bee1eadc94f>
- **Prediction and control with function approximation:**
 - <https://coursera.org/share/ed446acf7e22b833e12b8a1a7b24aeff>
- **A Complete Reinforcement Learning System (Capstone)**
 - <https://coursera.org/share/127dc251fa5fa5fafe3ef5be4a5e4ad2>

Graduation Project

- In our graduation project, I and my team have built a system called **Lighthouse**.
- It was about helping missing people , specifically children, to come back to their family.
- Steps of the process:
 - The father of the missing person inputs a photo to the app.
 - Volunteer take a photo of a missing person he find in a street, enter it to our app.
 - Our system compares both photos and give a similarity measure. If it is high ,then both photos are of the same person and the app sends the father's phone number to the volunteer to receive his child.
- I was the builder of the AI part of the app.
- I took **149 / 150** in this project.

Graduation certificate


شهادة
0099327
كلية الهندسة

تشهد الكلية بأن / محمد الجبالي فتحي المؤذن
المولود في الغربية بتاريخ ١٩٩٨/٠٦/٢٠
قد حصل علي درجة البكالوريوس في الهندسة
تخصص هندسة الحاسبات والتحكم الآلي
دور يونيو سنة ٢٠٢١ بتقدير عام جيداً مرتبة شرف
بمجموع درجات ٥٢٣٣,٠٠ بنسبة مئوية ٧٧,٥٣ %
(فقط وقدره خمسة آلاف ومائتين وثلاثة وثلاثون درجة لا غير)
من المجموع الكلي التراكمي للدرجات وقدره ٦٧٥٠ درجة
وقد حصل في المشروع على تقدير ممتاز
في مجال / المنارة: نظام للبحث عن المفقودين باستخدام تقنية التعرف على الوجه
وقد وافق مجلس الجامعة على منح الدرجة العلمية في جلسته المنعقدة بتاريخ ٢٠٢١/٠٧/٢٨
والممتدة حتى ٢٠٢١/٠٧/٣١
بناءً على اقتراح مجلس الكلية بتاريخ ٢٠٢١/٠٧/٢٨
الكلية معتمدة من الهيئة القومية لضمان جودة التعليم والاعتماد
بجلسة الهيئة رقم (١٤٤) بتاريخ ٢٠١٥/٨/٢٤

وقد حررت هذه الشهادة بناءً علي طلبه لتقديمها إلى من يهمه الأمر
المختص رئيس قسم شئون الخريجين مدير إدارة شئون الطلاب
عبدنور الدين
تحريراً في ٢٠٢١/١/٥
أ.م. أحمد محمد أحمد نصر

وحدة نظم المعلومات الإدارية في ٢٠٢٢/٠١/٥
هذه الوثيقة مرفقة على قاعدة بيانات جامعة طنطا تحت رقم ٢٠٨٩٤٥٨٥ ويمكن الرجوع إليها على الإنترنت على العنوان التالي
<http://tob.tanta.edu.eg/graduates>