Ahmed Mohamed

Work Experience

- **Teaching Assistant**
  Faculty of Engineering - Ain Shams University

- **Software Engineer**
  F123 (Remote)

Education

- **Master Degree of Computer Science** 2019 – Present
  Cairo University

- **Bachelor Degree of Computer Science** 2014 – 2018
  Thebes Academy

Programming Contests Activity

- 1st Place CS50x coding contest 2017
- 4th on Egypt, 95th worldwide among 3350 teams – IEEEXtreme Competition
- 2nd Place ACM QECPC 2017
- Contestant at ACM ECPC 2017
- Contestant at ACM ACPC 2017
- 1st Place ACM Thebes AcademyCPC 2018
- Contestant at ACM ECPC 2018

Competitions & Achievements

- 1st Place InnovEgypt Winter 2017
- 5th Place Mecato Line Follower Robot challenge 2017
- 7th Place Robocon Azhar 2017
- 1st Place iCamp Sumer 2017
- 2nd Place ZEH Competition Summer 2017
- KuaiKai Self-driving Racing Challenge – China 2018

Online Courses Certificates

- **Machine Learning Specialization** Coursera
- **Mobile Web Specialist Nanodegree** Coursera
- **Python for Everybody Specialization** Coursera
- **Machine Learning (Stanford University)** Coursera
- **Deep Learning Specialization** Coursera
- **Self-Driving Car Nanodegree** Udacity
- **Advanced Machine Learning Specialization** Coursera

Projects and Experience

- **Advanced Driver Assistance Systems (ADAS)** Graduation project
  Supervisors:
  - Prof. Sharif Hammad sherif.hammad@eng.asu.edu.eg
  - Dr. Hossam Hassan hossameldin.hassan@eng.asu.edu.eg

  Modules:
  - Lane Detection
  - Tracking and Depth Estimation
  - Path Planning
  - Object Detection,
  - Behavioral Cloning
  - localization
- **Arabic Speech Recognition Systems** – build speech recognition system using kaldi, Also I have tried several others framework Sphinx, HTK, Mozilla Deep speech.
- **Arabic Text to Speech Systems** – build Text to Speech system using Merlin and Ossian, Also I have tried several others framework like Festival and Tacotron.
- **Dog breed identification** — Kaggle Competition In this challenge, I implemented fully connected deep neural network to predict 120 Dog breed identification with 10 thousand images net.
- **CIFAR-10 -Kaggle competition** I implemented a CNNs to classify 50 thousand images to 10 classes by using CNN, Keras, Sklearn and Kaggle Kernel.
- **Design a Fisher's linear discriminant algorithm that can classifying images of the 10 digits, I implemented this algorithm from scratch.**
- **Design spectral clustering** — Apply the unsupervised learning clustering algorithm with the goal of identifying two clusters corresponding to two concentric circles, I built this classifier from scratch.
- **Face Detection using Yolo on Nvidia Jetson TX2**

Internship

- InnovEgypt Program – TIEC 1 Week
- Mini Maker Diploma – U.S Embassy, Cairo 2 Month
- Advanced Maker Diploma – U.S Embassy, Cairo 2 Month
- NTL – Machine Learning Track 6 Month
- Information System Intern – Ministry of Communications and Information Technology (MCI 4 Weeks
- NTL Administrative Coordinator – ITIDA 1 Week
- Big Data Science Track – National Telecommunication Institute 3 Month
- Google Summer of Code '19 – Google 2 Month

Extracurricular activities

- MSP Egypt (Microsoft Tech Club) – Technical 2016
- Pixel (Faculty of engineering Helwan university) – Maker 2016–2017
- InnovEgypt Graduation ceremony 2017 – Organizer 2017
- FLL (FIRST LEGO League) – Judge Assistant 2017
- IEEE Cairo Student Branch – Computer Moderator 2017–2018
- TIEC Ambassadors (Innovation Student Ambassador) 2017–2019
- IEEEXtreme Student Ambassador – IEEE 2017–2019

Others

- **Programming Languages**: C++ – Python – Java – JavaScript – R – Julia

- **Technologies:** SQL – Tableau –IBM Watson – Google cloud platform – Kubernetes – Docker – Git

- **Interests**: Problem Solving – Artificial Intelligence – Big Data – Robotics

- **Hackathon:** Junction – IOT Egypt – NASA Space Apps – Flat6labs fintech Hackathon Microsoft Code4Youth – Global Game Jam – Lean Startup Methodology Training for Startups & SMEs

- **Language Skills:** Arabic: Mother Tongue
  English: Advanced Italian: Intermediate

- **Personal Skills:** Teamwork, Interpersonal, Sociable and self-motivated

- **IDEs & Editors:** Sublime – VIM – Code::Blocks – Eclipse – Geany – PyCharm Microsoft Visual Studio – Netbeans – Android Studio – Unity – Atom

- **Much Fun**: Swimming, Football, Helping Others

I'm a Data Scientist with a strong engineering background, I really enjoy learning new things with a passion for AI and Machine Learning, cognitive computing, predictive analysis, NLP and deep learning coming up with new models, developing high quality, high-performance code and constantly improving the solution and expanding its scope by solving complex business problems using machine learning and new technology and the ability to see insights turned into real value.

Favorite projects I have worked on:
- Fake News Detector using Sentiment Analysis to determine whether the article is fake or not (Stemming, Lemmatization, NLTK, Word2Vec, AraVec, Glove, LSTM) for both English and Arabic Language.

- Web Search Engine and Crawler.

- Face Detection using Yolo on Nvidia Jetson TX2

- Sentiment Analysis for Product Rating that detects hidden sentiments in comments and rates the product accordingly.

- Automatic Speech Recognition Systems – Build ASR models with various ASR techniques including, CMU Sphinx, Kaldi, Mozilla deep speech

- Text to Speech Synthesizer – Build Text to Speech synthesizer using Merlin and Ossian, Also I tried other frameworks e.g. Festival and Tacotron.

- Self-driving Car (Graduation project): Modules: Lane Detection, Object Detection, Tracking, and Depth Estimation, Behavioral Cloning, Path Planning, localization on Nvidia jetson TX2 and Z-cam.

- Home Automation system (Intel Galileo, Jetson Nano).

- Bot Space: bot project is built using artificial algorithms that analyze the user's queries and understand the user's message.

- University management system, It mainly maintains the list of colleges affiliated to the university and their different streams. Additionally, the project also maintains and handles the examination as well as the result department with a proper menu system.

Work Experience:
Google summer of code inten '19 - Google
Teaching Assistant "Part-time" - Faculty of Engineering Ain Shams University
Data Science intern – NTI
Software engineer - F123

Online courses:
Machine Learning Specialization
Python for Everybody Specialization
Deep Learning Specialization
Self-Driving Car Nanodegree
AI Programming with Python Nanodegree

Technologies:
Programming languages (Python, R, C++, Ruby, Scala) || Python libraries (Pandas, Numpy, Scikit-learn, Scipy, Scrapy, Flask, Selenium, Beautiful Soup, etc..) || R packages (dplyr, ggplot2, shiny, caret, etc..) || Machine Learning techniques (Keras, Tensorflow, Pytorch, MxNet, NLP, KNN, Random Forest, Bayesian Statistics, Naive Bayes, SVM, Tableau, etc..) || Big Data (Hadoop, Spark, Hive, Flume, Sqoop, Cloudera, MongoDB, SQL, PostgreSQL) || Cloud (AWS, Azure, GCP, Colab, Kaggle) || DevOps (Linux, Bash Script, Docker, Kubernetes, Jenkins, Heroku, CI/CD, Github) || Frontend (HTML, CSS, java Script, Bootstrap) || Backend (Ruby on Rails, NodeJS, REST API, Elasticsearch)

For more info please follow the links below

Github: https://www.github.com/ahmedmadbouly
Linkedin: https://www.linkedin.com/in/ahmed-madbouly
Website: https://ahmedmadbouly.github.io
Phone: +201112996274
Email: ahmedmadbouly@yahoo.com
Skype ID: ahmedmadbouly88

Thank you in advance for your consideration.

Sincerely,
Ahmed