# **Abdelrahman Hamdy Radwan**

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## **Work Experience**

- Wuzzuf, Part-time Artificial Intelligence Engineer (Feb 2018 Present)
  - Working on enhancing the search, recommendation, ranking and personalization modules.
  - Creating an employers' assistant; to help the employers in choosing the best match candidates and post jobs easily.
  - Tech stack: Python, Flask, Scikit-learn, Gensim, SpaCy, TextBlob, FastText, Raza NLU.
- The D. GmbH, Full-time Data Scientist (Dec 2017 Present)
  - Working on creating a virtual football/soccer coach in **CUJU** app.
  - Implementing Machine Learning and NLP models in <u>CUJU-Chatbot</u>; to make it smarter.
  - Working on crawling and scraping football/soccer related data from different websites.
  - Working on optimizing the indexing and searching in Elasticsearch; to make it personalized.
  - Tech Stack: Python, Flask, Node.js, Elasticsearch, MongoDB, Dialogflow, TensorFlow, Scikit-learn, Gensim, SpaCy, Docker.
- Edfa3ly, Part-time Artificial Intelligence Engineer (Sep 2017 Feb 2018)
  - Created the Artificial Intelligence engineering team and set up the team's roadmap and vision.
  - Investigated the market needs, and how we can use Artificial Intelligence in our products.
  - Worked on an Artificial Intelligent shopping assistant, including shopping recommendation module and a Chatbot.
  - **Tech stack**: Python, Flask, Dialogflow, Elasticsearch, TextBlob, FastText.
- Trendak, Full-time Data Engineer (Jul 2017 Dec 2017)
  - Worked on crawling different social media channels in different languages.
  - Worked on optimizing our Elasticsearch engine to retrieve more related data to the queries' keywords.
  - Used Big Data technologies to handle the data streaming; to be able to answer real-time queries.
  - Worked on building a pipeline to annotate the crawled data, and extract insights and analytics from them.
  - Tech Stack: Python, Django, Java, Elasticsearch, Redis, Apache Storm, Apache Kafka, Apache Zookeeper, Docker.
- Microsoft Advanced Technology Lab (ATLC), Software Engineering Intern (Jul 2016 Sep 2016)
  - Worked on LUIS (Language Understanding Intelligent Service), added Japanese/German/Portuguese language models.
  - Worked on CRIS (Custom Recognition Intelligent Service), built a showcase demo for Microsoft Cognitive Services.
  - Tech Stack: C#, .NET, Python, Flask.
- Association for Computing Machinery (ACM), Volunteer Mentor (Sep 2014 Jan 2018)
  - Mentored junior students on various algorithms, data structures and problem-solving techniques.
  - Created and tested algorithmic and mathematical problems for various ACM contests.
  - Tech Stack: Python, C++, STL.

#### **Education**

#### Ain Shams University (2018 - Present)

• Pursuing Master's degree in Artificial Intelligence and Machine Learning.

## Mansoura University, Research Assistant (2017 - Present)

• Working with <u>Islam El-Hosary</u> in Computer Science department on research and implementation of innovative ways to enhance the progress made in the machine comprehension of text using deep learning.

## Ain Shams University (2013 – 2017)

• Bachelor's Degree in Computer Science with 03.00/04.00 GPA.

## **Open Source Projects**

**More Contributions** 

- <u>Image Colorization</u>: CNN based tool, which can colorize grayscale images.
  - Toolkits: Python, Flask, TensorFlow, OpenCV, NumPy, Pillow.
- Objects Detection in Noisy Images: An intelligent tool which can detect and count geometric shapes in noisy images.

  Toolkits: Python, OpenCV, NumPy.
- Open Domain ChatBot: Deep learning based open domain Chatbot, based on Google's <u>Neural Conversational Model paper</u>.
   Toolkits: Python, TensorFlow, NLTK, Pandas.
- Magnetic Lasso Tool: A livewire used for selecting objects from images to resize/delete/copy/move them.

**Toolkits**: C#, Windows Forms.

• Facial Gesture Recognition: Deep learning based tool, which can control the PC using the facial gesture.

Toolkits: C#, Windows Forms.

• Arabic Handwritten numbers recognition: Naive Bayes classifier for Arabic handwritten numbers.

Toolkits: C#, Windows Forms.

• I Read: Web app by which you can view, list and read free books with advanced search/filters features.

**Toolkits:** Python, Django, Elasticsearch.

• <u>Jobs Recommender</u>: Jobs Recommendation system, based on user's passion and interests, trained on <u>Wuzzuf dataset</u>.

Toolkits: Python, Elasticsearch, Pandas, NLTK.

• Pascal Compiler: Lexical (scanner and parser) and Semantic analysis phases for Pascal programming language.

Toolkits: C#, Golden Parser.

• Operating System Memory Management: A memory management module with kernel features.

Toolkits: C, Assembly language.

• Brain Game Box: Two strategic games, 2D Chess and Portals 2D game.

Toolkits: C#, XNA game studio.

• Classic Game Box: Two classical console games, 2D packman and 2D Bomber-man.

Toolkits: C++, SFML library.

#### Skills

- Programming languages: C, C++, C#, Python, Java, JavaScript, SQL.
- **Competitive programming:** Solved <u>1.5k+ algorithmic problems</u>, participated in Google Code Jam, Google Hash code, Facebook Hacker Cup, Top Code Open (TCO) and ACM contests.

# **Leadership Activities**

- Explained Computer Vision basic concepts in the Computer Vision official Hackathon at Ain Shams University. (2018)
- Organized and led the Quora World Meetup in Cairo, with 120+ attendees and 6+ thought circles. (2017 & 2018)
- Organized and led the Official Algorithms Battles at Ain Shams University with 500+ participants. (2017)
- Explained Machine Learning and AI basic concepts at Ain Shams University with 50+ attendees. (2017)

#### **Achievements**

- 2<sup>nd</sup> place in the official Computer Vision content at Ain Shams University, out of 25+ teams. (2018)
- 7<sup>th</sup> place in the ACM regional contest in MENA, out of 90+ teams. (2017)
- 6<sup>th</sup> place in the ACM national contest in Egypt, out of 250+ teams. (2017)
- 3<sup>rd</sup> place in the ACM local contest at Ain Shams University, out of 75+ teams. (2017)
- 10<sup>th</sup> place in Wuzzuf Algorithms Battle in Egypt, out of 3000+ participants. (2017)
- Quora most viewed writer in many computer science related topics, with 1.3k+ followers and 1m+ answers views. (2017)
- Received thank you emails from Facebook, Quora, LinkedIn, and Wuzzuf; for reporting bugs in their websites/apps. (2017)
- 4<sup>th</sup> place in ACM local contest at Ain Shams University out of 50+ teams. (2016)
- 1st place in the algorithms projects competition at Ain Shams University, out of 180+ teams. (2016)
- 4<sup>th</sup> place in the algorithms' design and analysis course practical assessments, out of 500+ participants. (2016)
- 4<sup>th</sup> place in junior year summer projects competition at Ain Shams University, out of 180+ teams. (2014)

More about me: www.sincere.ly/abdelrahmanhamdyradwan/