Badr ALKHAMISSI
MSc Student in Computational Cognitive Neuroscience

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📍 11 el-Fardous St., al-Agouza, Giza 12411   ℹ Born on 28 August 1995 (24 years) in Cairo, Egypt

🎓 EDUCATION

September 2020 September 2019	**Goldsmiths, University of London**, MASTER OF SCIENCE, London, UK > Currently doing my MSc in Computational Cognitive Neuroscience.
June 2018 September 2014	**The American University in Cairo**, BACHELOR OF SCIENCE, Cairo, Egypt > BSc. in Computer Science - Summa Cum Laude. **GPA 4.0** > President's Cup and Mohamed El Beleidy Academic Award for Class Valedictorian. > Mohammed Bin Abdulkarim A. Allehedan Award for highest performing STEM student. > Academic Achievement Scholarship. > Thesis : Video Search using Natural Language.
July 2017	**Tsinghua University**, DEEP LEARNING SUMMER SCHOOL, Beijing, China > Thorough training in deep learning, covering many applications in Computer. Vision, NLP, Knowledge Graph, Social Media Analysis, Multimodal Analysis and Robotics. > Outstanding Performance Award in Deep Learning Summer School at Tsinghua University.
December 2016 August 2016	**Stony Brook University**, SEMESTER ABROAD, New York, United States > Coursework : Specializing in Computer Vision and Artificial Intelligence. > Best Junior Award in Stony Brook ACM Regional Qualification Contest. > Abdallah Jum'ah Study Abroad Scholarship.
June 2014 September 2011	**Manor House School**, IGCSE, Cairo, Egypt > International General Certificate of Secondary Education (IGCSE). > High Achiever Award in Cambridge AL Computing. > Advanced Levels in Computing, Mathematics and Arabic (A*, A, A) and Advanced Subsidiary Levels in Physics and Chemistry (A, A).

💼 INDUSTRIAL AND RESEARCH EXPERIENCE

September 2019 April 2019	**Applied Scientist**, MICROSOFT ADVANCED TECHNOLOGY LAB IN CAIRO, Cairo, Egypt > Part of LUIS Applied Science Team > Part of the Machine Teaching Innovation Group > Research in Cross-Lingual Model Transfer > Best Mentor Award (second place) > First Place in MS ATLC Hackathon `Keras` `Tensorflow` `PyTorch` `Python` `C#`
March 2019 January 2018	**Machine Intelligence Research Assistant**, VKANSEE, Cairo, Egypt > Conducting research for Vkansee to improve state-of-the-art algorithms in bio-metrics through ML > Optimize implementations for speed and space to suit embedded devices with restricted resources > Assist in data collection, labeling, and preprocessing > Work with and support engineers from leading mobile phone and device manufacturers to integrate Vkansee solutions into industry standard platforms `Keras` `Tensorflow` `Python` `C++` `QT`
September 2018 June 2018	**Software Engineer**, MICROSOFT ADVANCED TECHNOLOGY LAB IN CAIRO, Cairo, Egypt > Researching the applicability of multilingual bot-interaction through Machine Translation > Mentoring Summer Intern > Developed Node CLI tool for MS Language Generation, part of Bot-Framework tools. > Collaborating with Microsoft Beijing for designing and developing core components part of MS Language Generation > Incorporate Machine Translation into MS Bot-Framework `Visual Studio` `C#` `NodeJS` `JavaScript` `TypeScript` `Python` `.NET` `MT`

Fall '15 & '17 & Spring '16	**Undergraduate Teaching Assistant, The American University in Cairo**, Cairo, Egypt

> Teaching assistant for Practical Machine Deep Learning
> Teaching assistant for Programming Fundamentals
> Hold regular office hours to help students
> Give sessions/workshops to assist students with their coursework

`C++` `Python` `Tensorflow` `Keras` `SFML`

Winter '16 & Summer '15	**Software Development Engineer Intern, Microsoft Advanced Technology Lab in Cairo**, Cairo, Egypt

> Supporting full-text search for MS Language Understanding Intelligent Service (LUIS) utterances
> Migrating existing LUIS database from Azure to MS SQL Server and adjusting LUIS features that uses this database accordingly
> Design and implement the application import/export feature on LUIS
> Developing different applications (iOS, Windows Phone and an Office Extension) that utilizes LUIS

`C#` `F#` `Swift` `Objective-C` `iOS` `Windows Phone` `.NET` `Visual Studio` `Xcode`

🖥 Projects

Deep Diacritization July 2019 - November 2019

🔗 Diacritizer

Personal research project that aims at automatically restoring diacritics for Arabic text. Outperforms the best published results and is orders of magnitudes faster in training.

`Python` `Tensorflow` `TFJS` `Keras` `NLP`

Video Search using Natural Language September 2017 - May 2018

🔗 github.com/bkhmsi/forget-me-not

Undergraduate Thesis Project. In this research, we propose a framework for searching long untrimmed videos for segments that logically correlate with a natural language query. We develop a new method that exploits state-of-the-art deep learning models on the temporal-action-proposal task, dense captioning of events in videos and pre-trained models that produce highly generic sentence representations to be able to retrieve video segments that corresponds to an input query.

`Python` `PyTorch` `Tensorflow` `Keras` `Computer Vision` `NLP`

Sketch Inversion using Deep Convolutional Neural Networks May 2017

🔗 github.com/bkhmsi/sketchback

Synthesising photo-realistic images from pencil sketches of human faces and architectural drawings of buildings through the use of deep convolutional neural networks.

`Python` `Tensorflow` `Keras` `Computer Vision`

☰ Skills

	Programming Languages
Proficient	C++, C, Python, JavaScript, TypeScript, C#, Java, SQL, Matlab, HTML, CSS
Prior Experience	Swift, Objective-C, F#, Elm, Ruby, Visual Basic, PHP, Verilog

	Frameworks & Technologies
Proficient	Tensorflow, Keras, PyTorch, NodeJS, iOS Development, AngularJS, Processing, Matlab, Octave, Microsoft.NET, SFML, Xcode, Visual Studio, Git, QT
Prior Experience	Android Development, Windows Phone Development, Messenger Bot Development, Alexa Development, Unity, Arduino, Ruby on Rails, Oracle, MS SQL Server, Firebase, Xilinx

🏆 Other Awards

> Dean's list from Fall '14 till Spring '18 - The American University in Cairo '14 - '18
> Computer Science Exemplary Student - The American University in Cairo '18
> Highest-GPA Award for Expected to Graduate - The American University in Cairo '18
> Third Place Amazon Innovation Hackathon - The American University in Cairo '18
> Highest-GPA Award for Juniors - The American University in Cairo '17
> Second Prize in Amazon Alexa Hackathon - The American University in Cairo '17
> High Achiever in CS1101 Course - The American University in Cairo '15
> Second Place in Common Reading Program Essay Contest - The American University in Cairo '14

Languages

Arabic ● ● ● ● ●
English ● ● ● ● ●
French ● ● ○ ○ ○

Activities and Volunteering

> Participated in several competitive programming contests including Google Hash Code, Facebook Hacker Cup and more. Qualified to ACM ECPC representing AUC, June '15 - Present

> Associate Head of the Computer Science and Engineering Association academics committee at AUC, responsible for organizing academic events and workshops, Spring '17

> Co-Founded Creative Coding Cairo under FabLab Egypt. Organize monthly meet-ups for the community, Juyl '16 - Sep '17

> Developed a Database System for Doum Cultural Foundation using MS Access VB and SQL. Sending HTML emails for Doum's News-list. Managing their website and their digital presence. Volunteer in organizing some of their workshops and cultural events, Cairo, September '12 - May '16

> Member of the academic committee in the Astronomy Club at AUC, assisted in the organization of the 2nd Astronomy Conference in AUC, Fall '14.

> Member of the CISV Egyptian delegation. Participated in organizing a summer camp in Paris, basing activities on : diversity, conflict resolution, sustainable development and human rights through experiential learning, June '15

> A member of the children jury delegation of long and short films in Cairo International Film Festival for Children ; our role was to select a winner for each prize in the film festival, '07, '08, '10