

# Badr ALKHAMISSI

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## EDUCATION

Goldsmiths, University of London, MASTER OF SCIENCE

📅 Sep 2019 - Sep 2020 📍 London, UK  
> MSc in Computational Cognitive Neuroscience.

The American University in Cairo, BACHELOR OF SCIENCE

📅 Sep 2014 - Jun 2018 📍 Cairo, Egypt  
> BSc. in Computer Science - Summa Cum Laude. GPA 4.0  
> President's Cup and Mohamed El Belediy Academic Award for Class Valedictorian.  
> Mohammed Bin Abdulkarim A. Allehedan Award for highest performing STEM student.  
> Academic Achievement Scholarship.

Tsinghua University, DEEP LEARNING SUMMER SCHOOL

📅 July 2017 📍 Beijing, China  
> Outstanding Performance Award in Summer School.

Stony Brook University, SEMESTER ABROAD

📅 Aug 2016 - Dec 2016 📍 New York, US  
> Best Junior Award in ACM Regional Qualification Contest.  
> Abdallah Jum'ah Study Abroad Scholarship.

Manor House School, INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION

📅 Sep 2011 - Jun 2014 📍 Cairo, Egypt  
> Outstanding Cambridge Learner Award in AL Computing.

## EXPERIENCE

Microsoft, SOFTWARE ENGINEER, APPLIED SCIENTIST

📅 Jun 18 - Sep 18, Apr 19 - Sep 19 📍 Cairo Egypt  
> Best Mentor Award  
> Research in Cross-Lingual Model Transfer

Vkansee, MACHINE INTELLIGENCE RESEARCHER

📅 Jan 18 - Mar 19 📍 Cairo Egypt  
> Conduct research to improve SOTA algorithms in fingerprint matching, spoofing and quality analysis

The American University in Cairo, TEACHING ASSISTANT

📅 Fall 15, 17, Spring 16 📍 Cairo Egypt  
> Undergraduate teaching assistant for Deep Learning and Programming Fundamentals courses.

Microsoft, SOFTWARE ENGINEER INTERN

📅 Jun 15 - Aug 15, Jan 16 📍 Cairo Egypt  
> Part of the MS Language Understanding Intelligent Service (LUIS) development team.

## PUBLICATIONS & CONFERENCES

> **Deep Diacritization** (First author). Accepted in *The Fifth Arabic Natural Language Processing Workshop. COLING/WANLP-2020*. Proposes a novel architecture for automatically restoring Arabic diacritics that outperforms previous SOTA methods.

> **Meta-RL on the Episodic Harlow Task** (First author). Under review in the **NeurIPS/MetaLearn 2020** workshop. Introduces an episodic variant of the Harlow visual fixation task and uses it as a testbed to analyze the performance and reinstatement gate activations of an episodic meta-RL agent.

> Junior Reviewer in the **NeurIPS/MetaLearn 2020** workshop

## PROJECTS

**EPISODIC META-RL ON THE TWO-STEP AND HARLOW TASKS**  
JUN 20 - SEP 20

🔗 [github.com/bkhmsi/Meta-RL-TwoStep-Task](https://github.com/bkhmsi/Meta-RL-TwoStep-Task)  
MSc Dissertation. Reproduces the results of animal behavior and artificial agents on both the Two-Step and Harlow tasks using an episodic meta-RL computational model that combines three fully-fledged RL systems inspired from the machine learning and neuroscience literature.

Python PyTorch Meta-RL RL EMRL Neuroscience

**VIDEO SEGMENT RETRIEVAL BY TEXT QUERIES** SEP 17 - MAY 18

🔗 [github.com/bkhmsi/forget-me-not](https://github.com/bkhmsi/forget-me-not)  
Undergraduate Thesis Project. Proposes a framework for searching long untrimmed videos for segments that logically correlate with a natural language query.

Python PyTorch Tensorflow Keras Computer Vision NLP

**SKETCH INVERSION USING DEEP CONVOLUTIONAL NEURAL NETWORKS**  
MAY 17

🔗 [github.com/bkhmsi/sketchback](https://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

**KORASTAK.COM** JUN 16 - PRESENT

🔗 [Korastak.com](https://korastak.com)  
Note-sharing platform with the goal of democratizing the studying experience for students in Egyptian universities.

NodeJS AngularJS JS TS Firebase NoSQL

## SKILLS

Proficient	Python, PyTorch, TF, Keras, C++, JS, NodeJS, C#, Java, SQL, Matlab, HTML
Prior Experience	Swift, Obj-C, F#, Elm, VB, PHP, Verilog, Ruby, iOS Dev, Android Dev, Windows Phone Dev, Alexa Dev, Unity, Arduino

## LANGUAGES

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

## OTHER AWARDS

> 1st in MS ATLC Hackathon  
> CS Exemplary Student  
> 2nd in Alexa Hackathon