

## EDUCATION



### École Polytechnique Fédérale de Lausanne, PHD

 Sep 2023 - Present  Lausanne, Switzerland  
➤ Part of the NLP and NeuroAI labs.



### 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 Beledy Academic Award for Class Valedictorian.  
➤ Mohammed Bin Abdulkarim A. Allehedan Award for highest performing STEM student.

### Manor House School, INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION



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

## EXPERIENCE



### Meta AI, AI RESIDENT

 Nov 2021 - Nov 2022  Seattle, US  
➤ Worked with Mona Diab and Asli Celikyilmaz.  
➤ Finished 5 first-author papers during my residency.



### Sony AI, AI RESEARCH INTERN

 Oct 2020 - Oct 2021  Tokyo, Japan (Remote)  
➤ Worked with Michael Spranger, as well as Sam Ritter and Zeb Kurth-Nelson of DeepMind.  
➤ Finished 3 first-author papers.



### Microsoft, SOFTWARE ENGINEER, APPLIED SCIENTIST

 Apr 2019 - Sep 2019  Cairo, Egypt  
➤ Best Mentor Award  
➤ Research in Cross-Lingual Model Transfer

### Vkansee, MACHINE INTELLIGENCE RESEARCHER

 Jan 2018 - Mar 2019  Cairo, Egypt  
➤ Conduct research to improve SOTA algorithms in fingerprint matching, spoofing and quality analysis

### The American University in Cairo, TEACHING ASSISTANT

 Fall 2015, 2017, Spring 2016  Cairo, Egypt  
➤ Undergraduate teaching assistant for Deep Learning and Programming Fundamentals courses.

## SELECTED FIRST-AUTHOR PUBLICATIONS

- INVESTIGATING CULTURAL ALIGNMENT OF LARGE LANGUAGE MODELS. **ACL 2024 (Main)**.
- DEPTH-WISE ATTENTION (DWATT): A LAYER FUSION METHOD FOR DATA-EFFICIENT CLASSIFICATION. **LREC-COLING 2024**. *Oral Presentation*.
- OPT-R: EXPLORING THE ROLE OF EXPLANATIONS IN FINETUNING AND PROMPTING FOR REASONING SKILLS OF LARGE LANGUAGE MODELS. **NL-Reasoning 2023 (ACL)**. *Poster Presentation*.
- HOW TO LEARN AND REPRESENT ABSTRACTIONS: AN INVESTIGATION USING SYMBOLIC ALCHEMY. **AutoML Late-Breaking Workshop 2022**. *Poster Presentation*.
- TOKEN: TASK DECOMPOSITION AND KNOWLEDGE INFUSION FOR FEW-SHOT HATE SPEECH DETECTION. **EMNLP 2022**. *Oral Presentation*.
- A REVIEW OF LANGUAGE MODELS AS KNOWLEDGE BASES. **Preprint**.
- THE EMERGENCE OF ABSTRACT AND EPISODIC NEURONS IN EPISODIC META-RL. **MemARI 2022 (NeurIPS)**. *Venue Spotlight, Oral Presentation*.
- EPIPHENOMENAL REPRESENTATIONS OF ABSTRACT RULES IN A CONNECTIONIST MODEL OF THE DELAYED MATCH TO SAMPLE TASK. **COSYNE 2022**. *Poster Presentation*.
- META AI AT ARABIC HATE SPEECH 2022: MULTITASK LEARNING WITH SELF-CORRECTION FOR HATE SPEECH CLASSIFICATION. **OS-ACT5 2022 (LREC)**. *Best Paper Award, Oral Presentation*.
- ADAPTING MARBERT FOR IMPROVED ARABIC DIALECT IDENTIFICATION: SUBMISSION TO THE NADI 2021 SHARED TASK. **WANLP 2021 (EACL)**. *Oral Presentation, SOTA*.
- DEEP DIACRITIZATION: EFFICIENT HIERARCHICAL RECURRENCE FOR IMPROVED ARABIC DIACRITIZATION. **WANLP 2020 (COLING)**. *Oral Presentation, SOTA*.

## SELECTED PEER REVIEW

- **Conferences:** ACL 2024. ArabicNLP 2024. NAACL 2024. EMNLP 2023, 2022. ACL 2023. AutoML 2022.
- **Workshops:** ICBINB 2022, 2021. ENLSP 2022. AutoML Workshop 2022. Meta-Learning 2021, 2020. Learning-to-Learn 2021.

## SELECTED TALKS



- AI Belmasry. Guest Speaker.
- Cohere For AI Community Talk. Speaker.
- TEDxMIU. Speaker. Representation Matters: Celebrating Egyptians in the AI Revolution.
- Mada Masr Podcast. Guest Speaker.
- NeurIPS 2021 Egypt Meetup. Panelist.
- Goldsmiths, University of London Career Event. Speaker.
- IndabaX Egypt 2019. Speaker.

## OTHER EDUCATION

### 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.