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| Work Experience [**(24 Jan 2023 - Present)**](https://www.microsoft.com/en-us/research/group/advanced-technology-lab-cairo-2/) **Machine learning Engineer at Ogoul:**   * Create ChatBot that search the web and another ChatBot with RAG using Langchain, langGraph, and Llama3.1. * Develop real-time transcription and translation for Speech-to-text task using Whisper. * GenAI project serves 12 API end points for text, image, video, audio, music and a combinations of them. * Improve Translation (en-ar from 11 to 63 Bleu) * Improve violence image classification(94 to 98) * Improve violence video classification(0.48 to 0.94 safe Recall, 0.82 to 0.98 violent Recall) * Improve inference speed by 4x on CPU and 5x on GPU, Also optimized memory by 8x using CTranslate2.   **[(Aug – Dec 2023) Microsoft Internship:](https://www.microsoft.com/en-us/research/group/advanced-technology-lab-cairo-2/)**   * **Automating novel terms and usage detection in Egyptian Arabic** **[**[**link**](https://drive.google.com/file/d/1vwZRaPyYCF7YvGDhRceObkqwwyMKCgNr/view?usp=sharing)**]:**   Keywords: (Scratch BERT, MARBERT, problem-solving, Autocorrect, Flask, Visualization)  **(may 2018 – Jan 2023) Freelancer:**   * [**(Dec – Jan 2022) Online Farming Website [link]:**](https://master.d2z62sczwjwy7d.amplifyapp.com/home)   Keywords: (Firebase, ReactJS, WordPress, AWS Amplify hosting)   * [**(Oct – Dec 2021) Online Farming App [link]:**](https://play.google.com/store/apps/details?id=com.silems.online_farming)   Keywords: (Firebase, Flutter)   * [**(may 2018 - 2019) Restaurant Cashier [link]:**](https://drive.google.com/drive/folders/1udj4TaCjOSEl7WG5TvKmut65_8w5mu5o?usp=sharing)   Keywords: (Java, JDBC, Hibernate, SQL, MySql, JasperReports, Trello) Activities  * **(May 2020 – June 2021) Military service** * **(Oct – 2019) [NASA Space Apps Cairo [link].](https://www.linkedin.com/company/nasa-space-apps-cairo/)**   [Certificate of appreciation](https://drive.google.com/file/d/0B50LpLRbx_1nNFBsdVVTSXJjZWM1UzhaLVk5d2pPbHg1aTNj/view?usp=sharing&resourcekey=0-KlTnR6iz9x2SNuhMdvRN7w).   * **(Sep – 2019) [IBM Digital - Nation [link].](https://www.linkedin.com/company/ibm/)**   [Acclaimed with 24 badges from IBM [link]](https://www.credly.com/users/khaled-el-saka/badges).  [Video for our project Trash-Money [link]](https://drive.google.com/file/d/1OHhYaV-LdgDYRhXw1M1LuscJWG2AWCI7/view?usp=sharing).   * **(Apr – 2017)** [**Techsolve17- SCCI workshop [link]**](https://www.linkedin.com/company/scci-cu/)**:**   Keywords: (Arduino, Sensors, Soft Skills) Other courses and certificates  * [(Nov – 2021) Python Programmer Bootcamp, 365 Data Science [link].](https://learn.365datascience.com/c/b4a4c74423/" \t "_blank) * [(Nov – 2021) Introduction to Data and Data Science [link].](https://learn.365datascience.com/c/9b025a1afe/) * [(Nov – 2021) Getting started with Java, Amegoscode [link]](https://drive.google.com/file/d/149hqI6Nn_ePm1wzl0Gmcs0sPInq7bCt1/view?usp=sharing). * [(Nov – 2021) Getting started with Spring Boot, Amegoscode [link]](https://drive.google.com/file/d/1EJhMI1OJKnFmr7bk4TDaQDAlEppBDKAV/view?usp=sharing). * [(Nov – 2021) Java (Basics) assessment, HakerRank [link]](https://www.hackerrank.com/certificates/f34d1f036c16). * [(Nov – 2021) Git and Github Essentials, Amegoscode [link]](https://drive.google.com/file/d/1exnIRA5XcbZ95XfnMFZhbIIEiip0gba8/view?usp=sharing). * [(Oct – 2021) Introduction to Linear Algebra, 365 Data Science [link].](https://learn.365datascience.com/c/b6b3f5dd35/) * [(Oct – 2021) Statistics, 365 Data Science [link].](https://learn.365datascience.com/c/0d7008355f/) * [(Oct – 2021) Introduction to Jupyter, 365 Data Science [link].](https://learn.365datascience.com/c/2db1e53b84/)  contacts +20 114 882 7429  Giza, Egypt  [khaled.elsaka25@gmail.com [link]](mailto:khaled.elsaka25@gmail.com) |  | khaled El-saka EDUCATION [**Master of Electrical and Computer Engineering – Ottawa University:**](https://www.uottawa.ca/en)  May 2022 – Jan 2023 ***Major***: AI and Data Science.  ***Projects:***   * [**Chinese sign language Image Classification [link]:**](https://github.com/Sa2a/CV_Hand_Gestures)   Keywords: (Image processing, Feature Engineering, ResNet, Zernike Moments, Data Augmentation)   * **[Static Vs Dynamic, Cybersecurity attack detection [link]:](https://github.com/Sa2a/CS_StaticVsDynamicModel)**   Keywords: (Preprocessing, Analysis, Feature Selection, Modeling, Kafka, Docker, Static Vs Dynamic Model)   * [**Healthcare Chat Bot [link]:**](https://github.com/Sa2a/ChatBot-Disease-diagnosing)   Keywords: (Preprocessing, DialogFlow, NLP, Classification, Clustering, Weighted Association Rules, Evaluation, Error analysis)   * [**Bitcoin price prediction using Sentiment Analysis [link]:**](https://github.com/Sa2a/Bitcoin-price-prediction)   Keywords: (Data collection and preprocessing, Sentiment Analysis, Ml, LSTM, Evaluation, Error analysis)   * [**Fake task detection [link]:**](https://github.com/Sa2a/Fake-task-detection)   Keywords: (CGAN, RF, AdaBoost)   * [**Intrusion Detection [link]:**](https://github.com/Sa2a/Intrusion-Detection-ML-project)   Keywords: (Dimensionality reduction vs Feature selection, Deep Neural Network, HP Tuning, Flow Chart, TSNE Visualization, Tensorflow)   * [**Sentiment Analysis for Arabic tweets [link]:**](https://github.com/Sa2a/NLP-Arabic-Sentimnet-Analysis)   Keywords: (Data preprocessing, BERT, araBERT, Fasttext, araXLENT)  **Faculty of Computers and Artificial Intelligence – Cairo University:**  2015 – July 2019 ***GPA***: very good with honor.  ***Major***: Computer Science. ***Minor***: Information System.  ***Graduation project***: [**School bus-tracking system [link]**](https://github.com/Sa2a/RBT_React_client)**:**  Keywords:(Android, ReactJS, Google Maps API, Firebase, NodeJs, Express, Socket I.O., TypeORM, MySql) Professional training **(Feb 2022–Jan 2023)** [**Digital Egypt Builders Initiative (DEBI)**](https://debi.gov.eg/)**:**   * (Feb – May) 240 hours of Berlitz English conversation course [[link](https://drive.google.com/file/d/1Lo4ydSYv1vWnmF38YrpslHgjl2Qv5U-Z/view?usp=sharing)]. * (Feb – May) 200 of Dale Carnegie training certificate [[link](https://drive.google.com/file/d/1Lmo8Fv-BwudHpJGkz14-pld8bVhccZ-L/view?usp=sharing)]. * [(Apr – May) IBM Big Data [link].](https://drive.google.com/file/d/1FwIqZnu_5Zcuf-YBJi-Vfiv-Fsumv67H/view?usp=sharing) * [(Mar – Apr) IBM Predictive Analytics Modeler [link].](https://drive.google.com/file/d/13wMjxmhHBLl51KQhullf86KXDKuARkD4/view?usp=sharing) * [(Feb – Mar) Huawei HCIA-AI v3 [link].](https://drive.google.com/file/d/1QKmw49DUEkjqa04fKm9Ly-iZ4K5xaaWJ/view?usp=sharing)  Soft skills  * **(Feb – May 2023) Dale Carnegie**   Communication, Leadership, Becoming a trusted advisor, Presentation, Business Acumen, Strategic Planning, Team Building.  [khaled-el-saka-962700161[link]](https://www.linkedin.com/in/khaled-el-saka-962700161/)  [Sa2a [link]](https://github.com/Sa2a) [khaledelsaka [link]](https://www.kaggle.com/khaledelsaka) |
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