Kirolos Ataallah

Research Engineer

Email: kirolosatef1997@gmail.com
Phone: (+20)1280636202
Address: El Obour, Cairo, Egypt

Google scholar :Kirolos Ataallah **(+150)**
GitHub: Kirolos Ataallah | github.com
LinkedIn : Kirolos Ataallah | LinkedIn
Kaggle: Kirolos Ataallah | Expert | Kaggle

SUMMARY

AI and Computer Vision Engineer with **4 years** of combined industry and research experience, specializing in **Vision-Language Models (VLMs)** and **Video LLMs**. First-author contributor to publications at **top-tier venues (ECCV 2024, EMNLP 2025)** on video understanding and benchmarking. Currently advancing large-scale video analytics as Senior Computer Vision Engineer at CreativAI, with prior experience applying computer vision in the sports industry particularly football match analysis. Integrates research depth with engineering execution for high-impact AI.

EDUCATION

Ottawa University, Canada. 2022-2023

Master's degree in Artificial intelligence and Data Science with GPA: A+.

Paper: **A Cost-Efficient Approach for Creating Virtual Fitting Room using Generative Adversarial Networks (GANs)**

Benha University, Shoubra Faculty of Engineering. 2015 - 2020

Bachelor's degree in computer engineering with GPA: Excellent with Honor Rank (88.3% 3rd place)

EXPERIENCE

- **Senior Computer vision Engineer** at **CreativAI**, San Francisco- California (Remote) Jun-2024 -Present
  Working on a large-scale video project focused on analyzing and aggregating insights from extensive video collections (+1000 hours) with efficient algorithms, parallel computations, and video knowledge graphs.
- **Computer Vision Researcher** (visiting student) at **VISION-CAIR** lab at **KAUST** University. Sep 2023-jun 2024
  Working under the supervision of Prof. Mohammed El Hossieny on research in computer vision, with a focus on vision-language models, long video understanding, and video benchmarking.
  - **MiniGPT4-Video: Advancing Multimodal LLMs for Video Understanding with Interleaved Visual-Textual Tokens** (**CVPRW 2024 Accepted**).
  - **Goldfish: Vision-Language Understanding of Arbitrarily Long Videos** (**ECCV 2024 Accepted**).
  - **InfiniBench: A Comprehensive Benchmark for Large Multimodal Models in Very Long Video Understanding** (**EMNLP 2025 Accepted**)
- **Computer Vision Engineer**, **Plaibook**-AI company Jan 2022-May 2024
  Analyze football matches using computer vision techniques, **including detection, generate bird's eye view, Gabs identification, jersey classification, player's tracking, and soccer event detection**.(Demo)
- **Amazon web service (AWS) master's project collaboration** July 2022-Jan 2023
  Developed a mobile application that anyone can try on any diverse number of fashion items by uploading both the human person and target cloth and our model generates a new one which is the human image with the target cloth. The project was deployed using AWS services including **EC2, S3, ECS, and ECR.**
  Paper: **A Cost-Efficient Approach for Creating Virtual Fitting Room using Generative Adversarial Networks (GANs) (Accepted at IJACSA journal)**
- **Freelancer computer vision Engineer** May-Sep-2022
  Deployed an image classification model for a startup company that classify statues for El Hdara Museum (Egyptian museum) using EfficientNet, AWS EC2, and flask.(technical report).
- **Flutter developer in Kinetics company.** Jun-Sep 2019
  Developed three mobile apps for iOS and Android.
- **ACM Instructor in ACM-SFE community** (Problem solving competition) Jan 2019
- **Freelancer Mobile developer (Java).** 2018 -2019

PROJECTS

- MiniGPT4-Video: Developed a multimodal Large Language Model (LLM) designed specifically for video understanding. The model is capable of processing both temporal visual and textual data, making it adept at understanding the complexities of videos and achieved SOTA results project_page.
- Goldfish, Developed an efficient retrieval mechanism for comprehending videos of arbitrary lengths such as movies and TV shows project_page.
- InfiniBench: Designed a robust benchmark for extreme long video understanding project_page.
- Contributed to the **YOLO v8** library in object tracking YOLO8Contributors.
- Generate empty football pitch from match frame using YOLOv8 instance segmentation and GANs (Pix2Pix).
- Read data from passports (MRZ) detection and text recognition using yolo8 and tesseract.
- Arabic Twitter sentiment analysis using (Ara-BERTv2-farasa-MARBERT) (Github)
- Predicting the closing price of shares in the stock market on Netflix company data and taking Twitter sentiment analysis into consideration. (Github) (technical report)
- Network-Intrusion-Detection-using-Deep Learning (Github)
- Bachelor's Graduation project **(Humanly Interactive VR**): Virtual scene of a hall containing some characters that can react to the user's speech, either by asking questions using the NLP model (Unilim)regarding said speech, reacting to the clarity of speech by making satisfied or dissatisfied facial expressions. Grade: **Excellent**. (Github)

SKILLS

- Hands-on experience with (AWS, GCP) ML cloud services.
- Proficient in deep learning frameworks such as PyTorch and Tensorflow.
- DevOps skills for models Dockerization and deployment.
- Proficient collaboration with teammates from esteemed institutions.
- Research skills (Has 3 Accepted publications).

COURSES and Certificates

- AWS Machine learning specialty (Certified) — May 2022
- AWS cloud partitioner (Certified) — Mar 2022
- Data Analysis Professional Nanodegree egFWD Udacity — Sep 2021
- Data Challenger Track from egFWD Udacity — July 2021
- Generative Adversarial Networks (GANS) specialization — Mar 2021
- Machine learning Stanford online (Andrew ng) — May 2020
- CS230: Deep Learning|Autumn2018(Stanford) — April 2020
- TensorFlow in practice specialization — April 2020
- Deep learning specialization — oct 2019-Mar 2020

Achievements and awards

- Placed **6th** in the Dell HackTrick Hackathon Competition 2022 — Mar-2022
  Developed a reinforcement learning model to solve the required game.
- Participated in the VIVA Technology Competition (Paris 2018) with an Android app — 2018
  Developed the Energiest app, which helps in charging electric cars.

EXTRACURRICULAR ACTIVITIES

- Member of IEEE (Android Committee). — 2016-2018
- Semi-senior in ACM community at Shoubra faculty of engineering — 2017-2019

LANGUAGES

- English (Fluent)
- Arabic (Mother tongue)