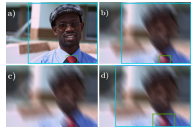


My current research is focused on methods for improving the robustness of core computer vision tasks for better performance in real world deployments. I also designed and built the majority of LookOut, a system for automating the task of pointing a camera during filming for low budget or small size crews (down to one camera-operator as the base case).

Publications



Improved Handling of Motion Blur in Online Object Detection - visual.cs.ucl.ac.uk/pubs/handlingMotionBlur

Mohamed Sayed, Gabriel Brostow

CVPR 2021



LookOut! Interactive Camera Gimbal Controller for Filming Long Takes - visual.cs.ucl.ac.uk/pubs/lookOut

Mohamed Sayed, Robert Cinca, Enrico Costanza, Gabriel Brostow

arXiv 2020

Education

PhD Student in Computer Vision (University College London)

September 2018

Supervised by Prof. Gabriel Brostow (www0.cs.ucl.ac.uk/staff/g_brostow/) and Dr. Matthew Johnson (MSRC) (microsoft.com/en-us/research/people/matjoh/).

MSc Computer Graphics, Vision, and Imaging (University College London)

September 2017 -
September 2018

Thesis: "Scripted Camera Control Through Visual Tracking" supervised by Prof. Gabriel Brostow www0.cs.ucl.ac.uk/staff/g_brostow/. Thesis mark: 91/100.

Distinction and Dean's List.

Bachelor of Electrical Engineering, Communications & Computer Engineering (Cairo University)

September 2012 -
May 2017

Thesis: worked with Mentor on improving the performance of a widely used tool using Process Mining. Supervised by Prof. Mayada Hadhoud (<https://www.linkedin.com/in/mayada-hadhoud-b730bb88>).

Distinction with honors.

Work Experience

May - Dec 2021,
London

Niantic, Inc., Research Intern

Computer Vision/Deep Learning based project.

Spring 2017,
Cairo

Valeo, Software Intern

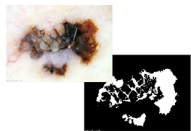
Designed and developed automation software for hardware integration testing. Reduced regression testing time significantly by completely automating dynamic code injection.

Summer 2016,
Cairo

Mercedes-Benz Egypt, IT Intern

Debugged local software. Recognized by the CEO for reporting and fixing errors and loopholes in the employee time tracking system. Developed replacement software for parts ordering and customer service that is now used across the Middle East by Daimler AG.

Other Projects



Melanoma Classification (2016)

Built a classifier for diagnosing melanoma skin lesions through dermoscopic images. Used conventional hand engineered feature extraction to feed a classifier.

Supervisor: Prof. Tawfik Ismail.



Telescope Guidance System (2016)

Amateur astronomy and astrophotography with an 8-inch Newtonian telescope. Designed, prototyped, and coded a telescope guidance system (hardware and software) using an Arduino microcontroller and the ASCOM driver platform. Images at astrobin.com/users/DexPrime/.



"YallaCode" Android App (2015)

Formulated an app idea, "YallaCode", to teach children, aged 10-15, how to build basic computer programs and led a team of four to develop the app. The app featured a built in "block statement" compiler.

Musical Glove (2013)

Built a "Musical Glove" using Arduino that tracks hand movements and alters musical notes played on a synthesizer through a virtual MIDI driver.

Teaching

University College
London

Voted Best Teaching Assistant (TA) in Computer Science (2018/2019).

Machine Vision TA - 2018, 2019, 2020 (head)

Computer Graphics TA - 2020

Image Processing TA - 2018, 2019

Computational Photography and Capture TA - 2019, 2020

Skills

Languages Python, C++, MATLAB, Java, C#, Assembly

DL Libraries Pytorch, Tensorflow

Useful Tools Inkscape, Adobe Photoshop, Adobe After Effects, Google Sketchup

Hardware Atmega and Arduino, Soldering, 3D Printing, Real-time Control, Serial Communication