Aly Youssef

Cairo, Egypt · aly-hassan-youssef@aucegypt.edu · +20 1011160288 · https://github.com/bobelmasry

Education

American University in Cairo   Cairo, Egypt
BS Computer Science *GPA: 3.33 (10 / 3)*   Fall 2023 - Spring 2027

Work Experience

Teachmegcse   Cairo
Startup Founder   August 2022 - October 2024

- Made a Python program using Tkinter, PYPDF2, Pdf2Image and PIL to automate the process of splitting a pdf question paper with up to 40 questions into a JPEG of each question on it's own reducing time needed to split the questions by almost 95%

- Automated classifying the questions into chapters using an AI naive-bayes text classifier with sci-kit to analyze the keywords that are specific to that chapter using training data and reaching an accuracy of 90%

- Built a Next.js website to allow teachers to dynamically add questions to a worksheet which can exported as a PDF. Also allowed students to interactively solve questions with tracking their progress and displaying explanations made with Gemini's api.

- Made a Python web scraping tool using python-requests and BeatifulSoup to get links for previous past papers from another website to automate downloading and hosting the files on AWS S3.

Skills

Programming Languages:	Python, JavaScript, C++, C, HTML, CSS
Frameworks:	NextJS, React, Sci-Kit, Django

Projects

YOLO Latex Math Parser *Python, YOLO, PyTesseract, PIL* https://github.com/bobelmasry/mathSolver
A Math parser that takes as input images which contain both Latex and normal text which then separates Latex formulas from the text using a custom made YOLO object detection model and uses the LatexOCR for those and PyTesseract for the normal text.

InstaFollower *Python, pyautogui, PIL*   https://github.com/bobelmasry/instaFollower
An Instagram Bot that automatically moves the mouse to follow people that follow related pages to yours, went from 50 followers on a test page to 500 in less than 10 days. Undetectable as it manually moves the mouse instead of interacting with the browser using Selenium.

g-drive *JavaScript, NextJS, Pocketbase*   https://github.com/bobelmasry/g-drive
A Google Drive Ripoff built with PocketBase. It offers file uploads, folder creation, previews of Images and mp3 files.

Planet Simulation *Python, Pygame*   https://github.com/bobelmasry/planet-simulation
A useful tool to map the trajectories of different planets and measure the eccentricity of their orbits using Newton's Laws of Gravitation.

Competitions

5th place at RoboCup @ Home Education 2024   Febraury 2024
Developed and integrated an object detection system using a pre-existing model to identify objects within the robot's environment, coupled with a depth camera to calculate precise object coordinates and depth. Leveraged this data to enhance the robot's perception, providing real-time inputs to the SLAM software for improved localization, mapping, and autonomous navigation in dynamic environments.