ADHAM KHALIFA
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EDUCATION

CONNECTICUT COLLEGE | CLASS OF 2023
- BA in Computer Science – GPA 3.519

RELEVANT COURSEWORK
Data Structures, Algorithms, Computer Vision, Software Development, Robotics & Problem-solving, Web Development

PROJECTS

- **Braille Object Detection**   **December 2021**
  - Developed a program that detects Braille dots from a picture and converts it to letters using Matlab.
  - Designed an interface to convert the text to speech using Google Text-to-Speech API and Python.
- **Smart Home Application**   **Nov 2017**
  - Programmed a webcam app that controls room devices by hand gestures using OpenCV and C++.
  - Added functionalities of several settings with hand signals: one turns lights on, two closes the door.
- **Smart ALS Assist**   **Feb 2018**
  - Developed a new assistive technology to help people with severe motor disabilities use the computer
  - Proposed a new edge-detection-based algorithm to detect face gestures using OpenCV and C++.
  - Designed a wearable prototype that can track the patient's eyes, lips, and cheeks movements.
  - Awarded the 7th place out of 300+ contestants at Blastoff Science & Engineering Fair in Cairo.

EXPERIENCE

SWE INTERN | YALE CENTER FOR RESEARCH COMPUTING - New Haven, CT   **June 2021-Dec 2021**
- Developed and designed an app to help Yale faculty access SSH keys using Django and Bootstrap.
- Designed an interface for an administrator use to track all keys being uploaded and their information.
- Received an extension offer for the fall semester to be their first-ever intern to work for 6 months.

RESEARCH INTERN | SUMMER RESEARCH - CONNECTICUT COLLEGE   **June 2020-Aug 2020**
- Built a program to assign classes to classrooms during the pandemic using Python and OpenPyXL.
- Implemented a Greedy algorithm to assign courses to rooms according to each's maximum capacity.
- Designed an efficient user-friendly UI using Django and Bootstrap to be used by the registrar.
- Saved the registrar an average of 4 weeks of work to finish schedules for 2,000+ students manually.

SOFTWARE ENGINEER | BEAU BIDEN FOUNDATION – CONNECTICUT COLLEGE   **Jan 2020-May 2020**
- Built a new website for the Beau Biden Foundation targeting 26,000+ users as a part of a course.
- Added more admin settings and blogpost options like animation files using Django and Bootstrap.
- Implemented support for visually impaired individuals with changeable modes of CSS colors.

LEADERSHIP EXPERIENCE

PROGRAM COORDINATOR | ROBOTICS CLUB - Connecticut College   **Feb 2020-present**
- Train newcomers on building robots including hardware and coding in Arduino C.
- Designed a robot car's sensor connections to the microcontroller for the semester's robot contest.
- Programmed our robot to find the shortest route to a point using Dijkstra's & BFS algorithms in C.

CHAPTER FOUNDER | HACK CLUB   **Oct 2018-Aug 2021**
- Independently launched the first Hack Club in Egypt to help high school students learn coding.
- Mentored the Egyptian Hack Club community in 6 high schools and over 70 memberships.

SKILLS SUMMARY

Technical: Python, Java, C/C++, Javascript, HTML/CSS, Bootstrap, React, Node.js, MongoDB, OpenCV, Matlab, Django
Languages: English (professional), Arabic (native), French (basic)