## Sozib Al Mamun Embedded Software Engineer

## UI Design for Sending Person Info and Image After Enrollment

The goal is to display the person's image and enrollment status after sending their information to the server. The design involves a static UI showing the captured image in a rounded frame, with a progress percentage indicating the image transmission status.

## Key Components:

- 1. Static Image Handling:
  - The captured image size may vary, so it must be scaled and placed in a static frame. This ensures consistency across different image sizes and provides a unified display experience.
  - o Functions used:
    - bool display\_faces(camera\_fb\_t \*buff);
       This function is responsible for displaying the captured image.
    - void scaleAndDisplayImageInFrame(uint8\_t
       \*src\_image, uint8\_t src\_width, uint8\_t
       src\_height, camera\_fb\_t \*dst\_buff, uint8\_t pos\_x,
       uint8\_t pos\_y);

This function scales the source image and places it within a predefined frame in the destination buffer.

- 2. Static Rectangle Rounded Frame:
  - The image is displayed within a larger rounded rectangle frame to enhance visual aesthetics. The rounded frame provides a cleaner and more modern UI presentation.
  - Function used:
    - void drawFilledRoundedRectangle(uint16\_t
      x\_offset, uint8\_t y\_offset, uint8\_t width,
      uint8\_t height, uint8\_t thickness, uint8\_t
      radius, uint16\_t color, camera\_fb\_t \*buff);

This function draws a filled, rounded rectangle frame around the image, adding thickness and color for clarity.

- 3. Display of Status and Letters:
  - The system displays various statuses such as recognition, enrollment, or deletion, along with the person's name and percentage of image upload progress. These are presented as letters or digits overlaid on the display.
  - Functions used:
    - void fillRoundedRect(camera\_fb\_t \*fb, int32\_t x, int32\_t y, int32\_t w, int32\_t h, int32\_t radius, uint32\_t color);

This function provides a filled rounded rectangle as the background for the status text. It enhances readability by adding a distinct background to the text displayed on the UI.

- 4. UI Integration for Status Display:
  - The rounded rectangle is dynamically filled to display the status of actions such as person recognition or enrollment. For each event, this background ensures that the displayed text is clear and easy to read, while also maintaining the consistency of the UI