

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Employee Badge Image Validation Tool

The Capstone Experience

Team Amazon

Jack Hammond

Khloe Hayes

Katelyn Hurst

Arul Srivastava

Timmy Wu

Department of Computer Science and Engineering

Michigan State University

Spring 2024



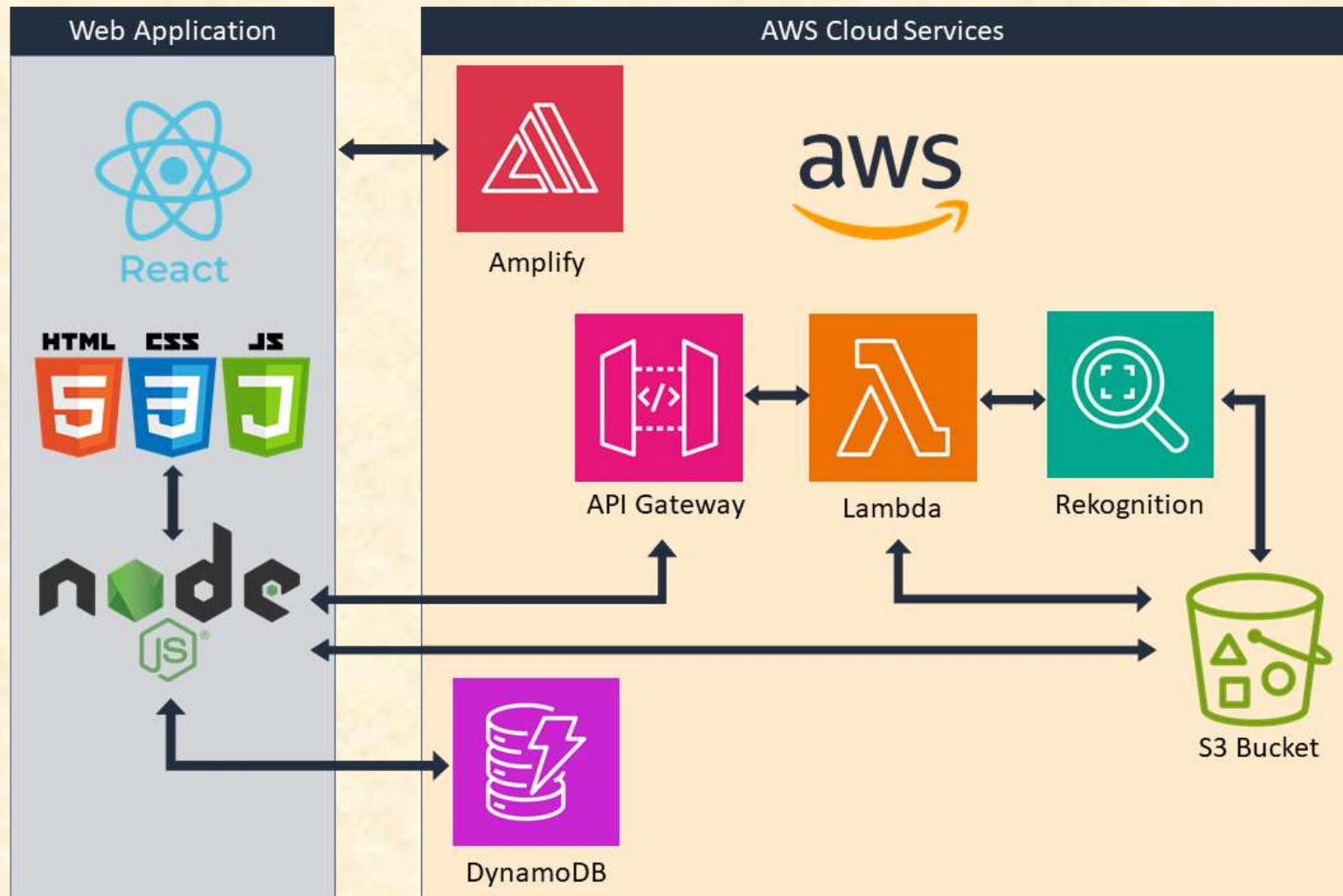
*From Students...
...to Professionals*

Project Overview

- Validates employee badge image against requirements
- Saves time for new hires and verification team
 - Instant feedback on proposed badge photos using machine learning
 - Accelerates new employee onboarding at Amazon
- Admin system to receive feedback from new hires and send updates to those hires, as well as model performance analysis.




System Architecture



Approved Image Page

Welcome new hires! We look forward to seeing your contributions to the team!
In preparation for your exciting first day, we invite you to pre-submit an image of yourself for your employee badge.

[Explore Examples](#)



[Submit Successful Image](#)

Badge Image Requirements

- ✓ Look straight into the camera
- ✓ Include top of head to mid chest
- ✓ Person is centered in the image
- ✓ Background of the photo should be white
- ✓ Photo is properly exposed with no shadows
- ✓ Avoid sunglasses
- ✓ Avoid caps and hats
- ✓ Avoid tilting your head

*Daily religious attire is acceptable
*Minimum Requirement: An image of yourself and just yourself
*No feedback will be given to images that do not need the minimum requirement
*Avoid cropping from a larger image if it sacrifices the quality of the image

© 2024, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Admin Review Page

The screenshot shows a web browser window with the URL `http://www.amazon.com`. The page header includes the Amazon logo and the title "Employee Badge Image Validation Tool". A navigation bar contains links for "About Amazon", "Amazon Culture", "Logout", "Chart Data", and "admin".

The main content area has a dark green header with the text "Please confirm if this image can be used for an Amazon badge". Below this are two buttons: "START" and "List View".

The central part of the page features a large image of a woman's face. To the right of the image, the text reads "Badge Image Did Not Meet These Requirements:" followed by a red 'X' icon and the message "Person is centered in the image". Below this, a note states "*Daily religious attire is acceptable".

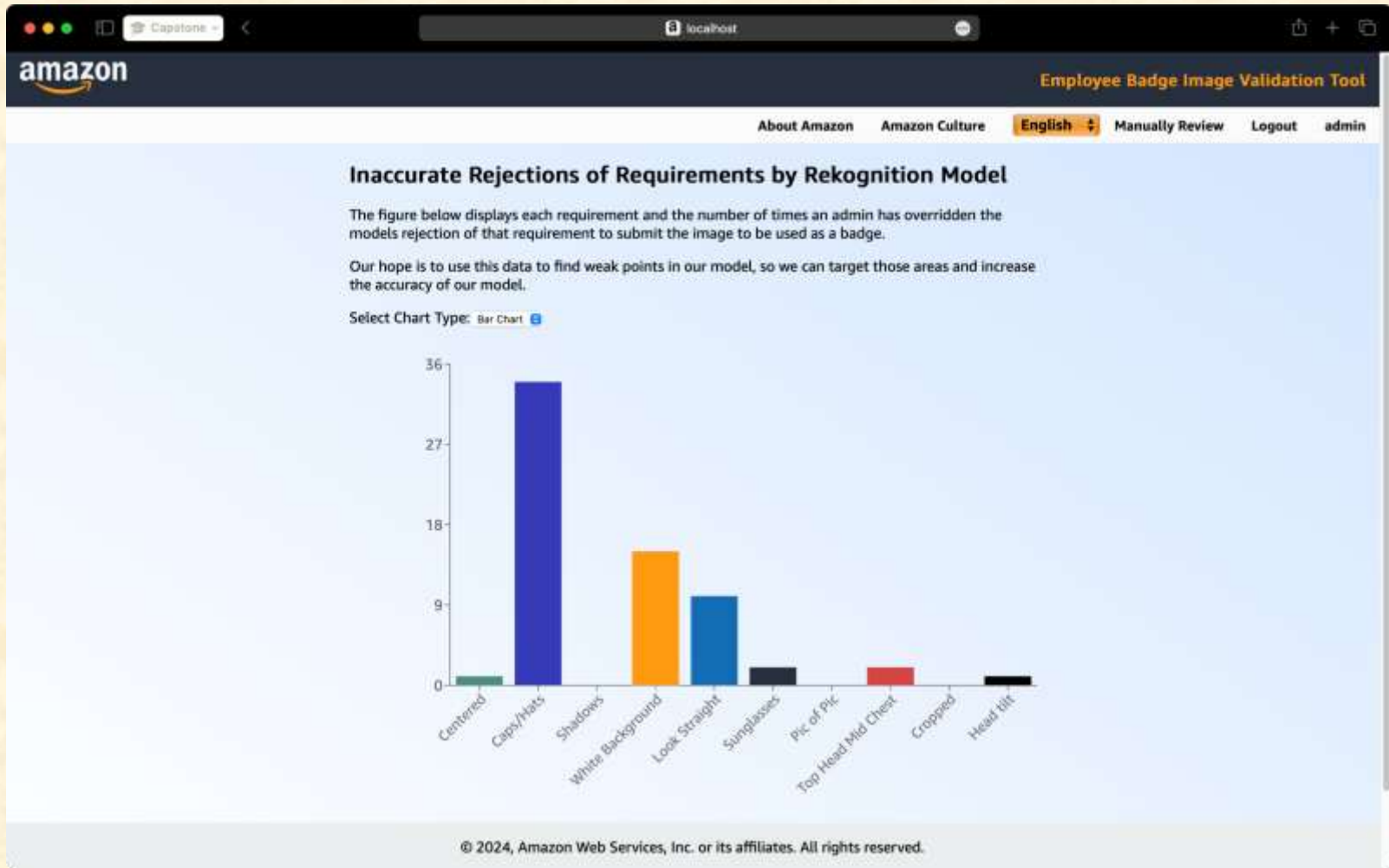
At the bottom right of the image area are two buttons: "Reject" and "Override".

Below the image, a text box contains the following description: "Description: requirements say that this image is not centered but it looks good enough to me for badge image. please review."

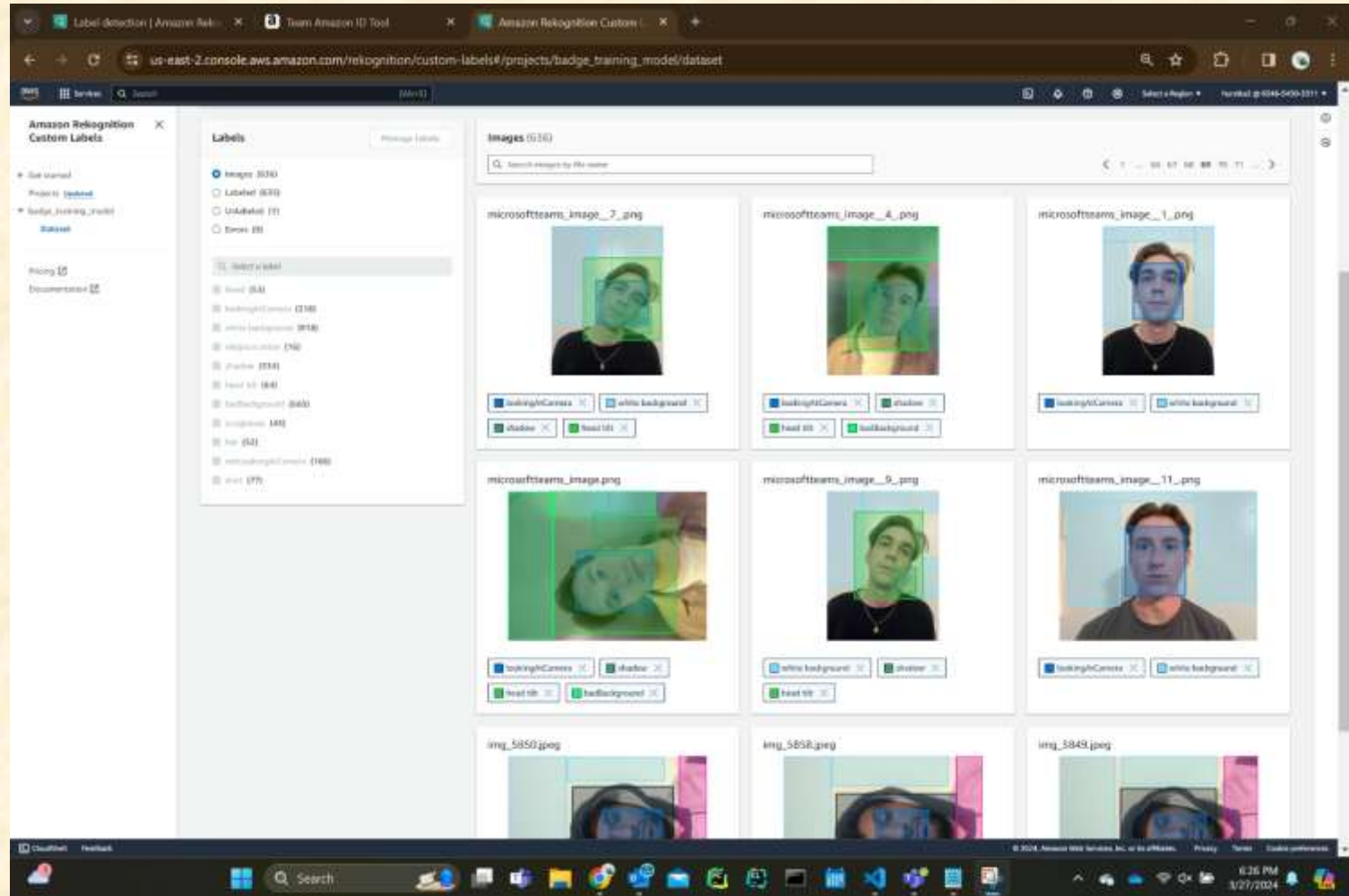
The footer of the page contains the copyright notice: "© 2024, Amazon Web Services, Inc. or its affiliates. All rights reserved."



Model Performance Analysis



Custom Training Model



What's left to do?

- Simple Bug Fixes
- Stretch Goals
 - Mobile View Styling
 - Increase confidence for use after semester and more accurate results
 - Enhance overall styling



Questions?

?

?

?

?

?

?

?

?

?

