

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

Computer Vision for Furniture

Manufacturing

The Capstone Experience

Team Herman Miller

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From Students...
...to Professionals

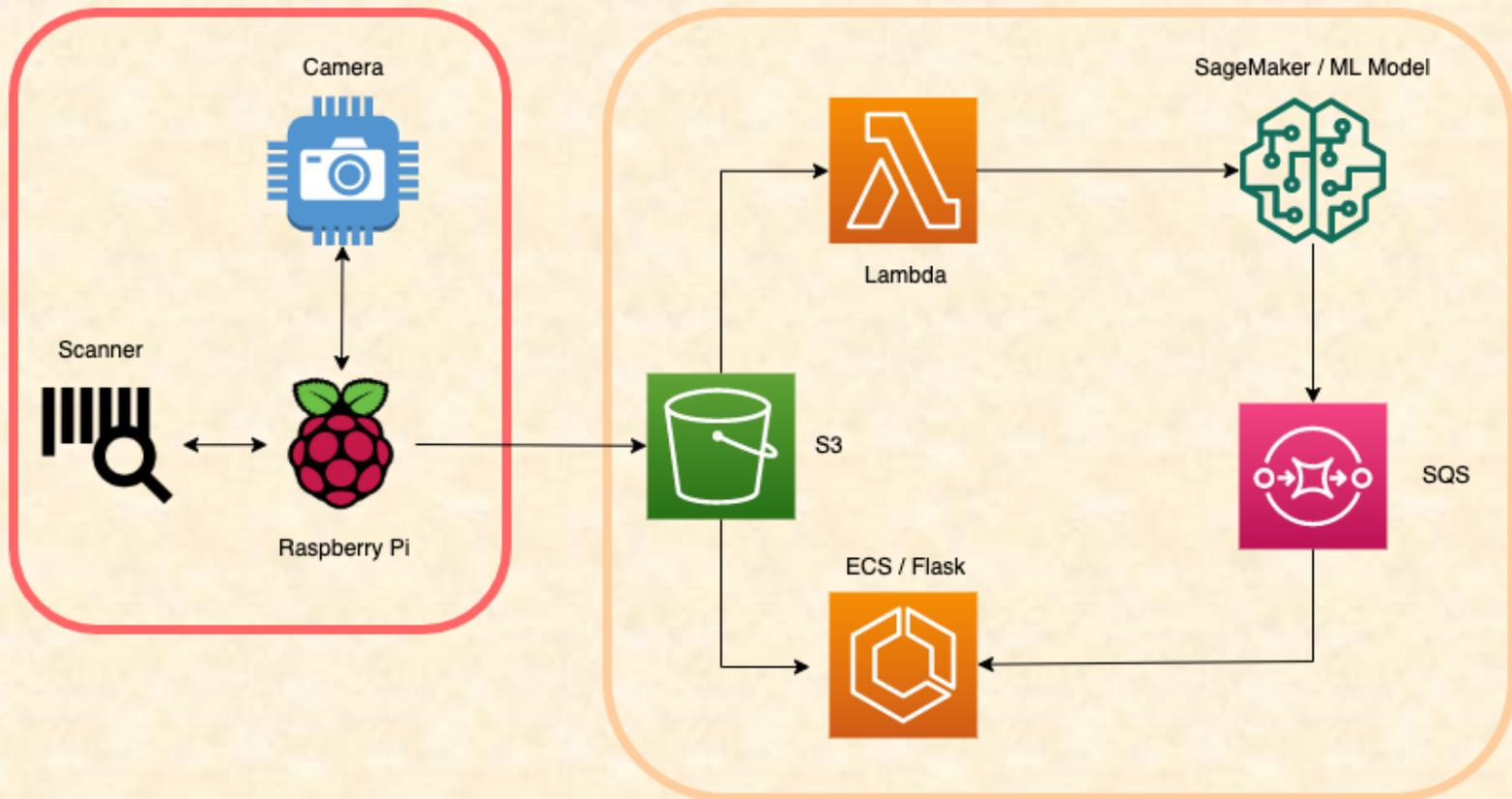
Project Overview

- Automates verification process after fabrics are glued on to panels
- Assists human inspection



System Architecture

 Herman Miller



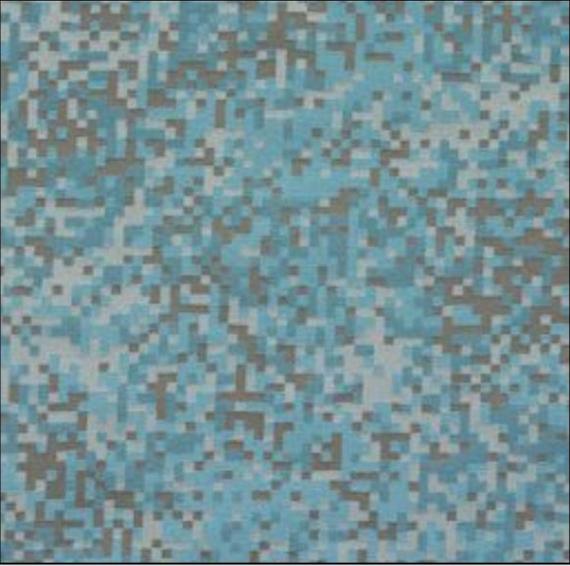
Passing Verification

Verification

herman-miller-app.com

 **HermanMiller**

Fabric Image



Fabric ID: 79608



Camera Image



Confidence Fabrics Match: 82.5%

Passing Verification

Verification

herman-miller-app.com

 **HermanMiller**

Fabric Image

Camera Image

Fabric ID: 78784

Confidence Fabrics Match: 80.1 %

Failing Verification

Verification

herman-miller-app.com

 **HermanMiller**

Fabric Image



Fabric ID: 79800

Camera Image



Confidence Fabrics Match: 3.7%



Passing Verification

Verification

herman-miller-app.com

 **HermanMiller**

Fabric Image

Fabric ID: 79531

Camera Image

Confidence Fabrics Match: 82.3%

What's left to do?

- Consistent Label Scanning
- Improve Machine Learning Model Accuracy
- AWS Configuration



Questions?

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