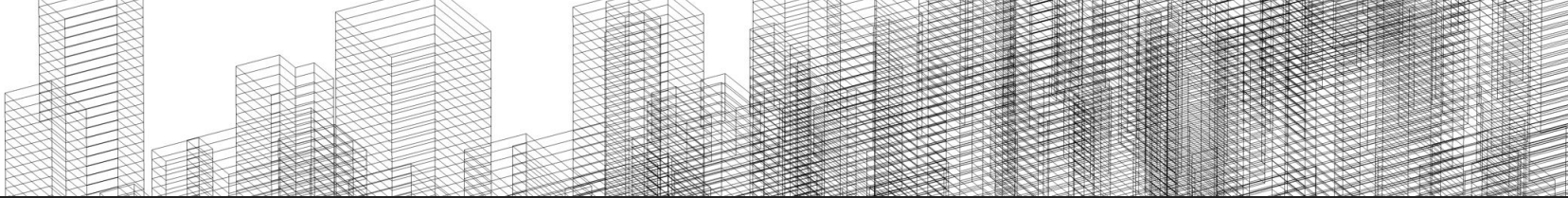


# **Team 13 - Image Scrambler Password**

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Azumah



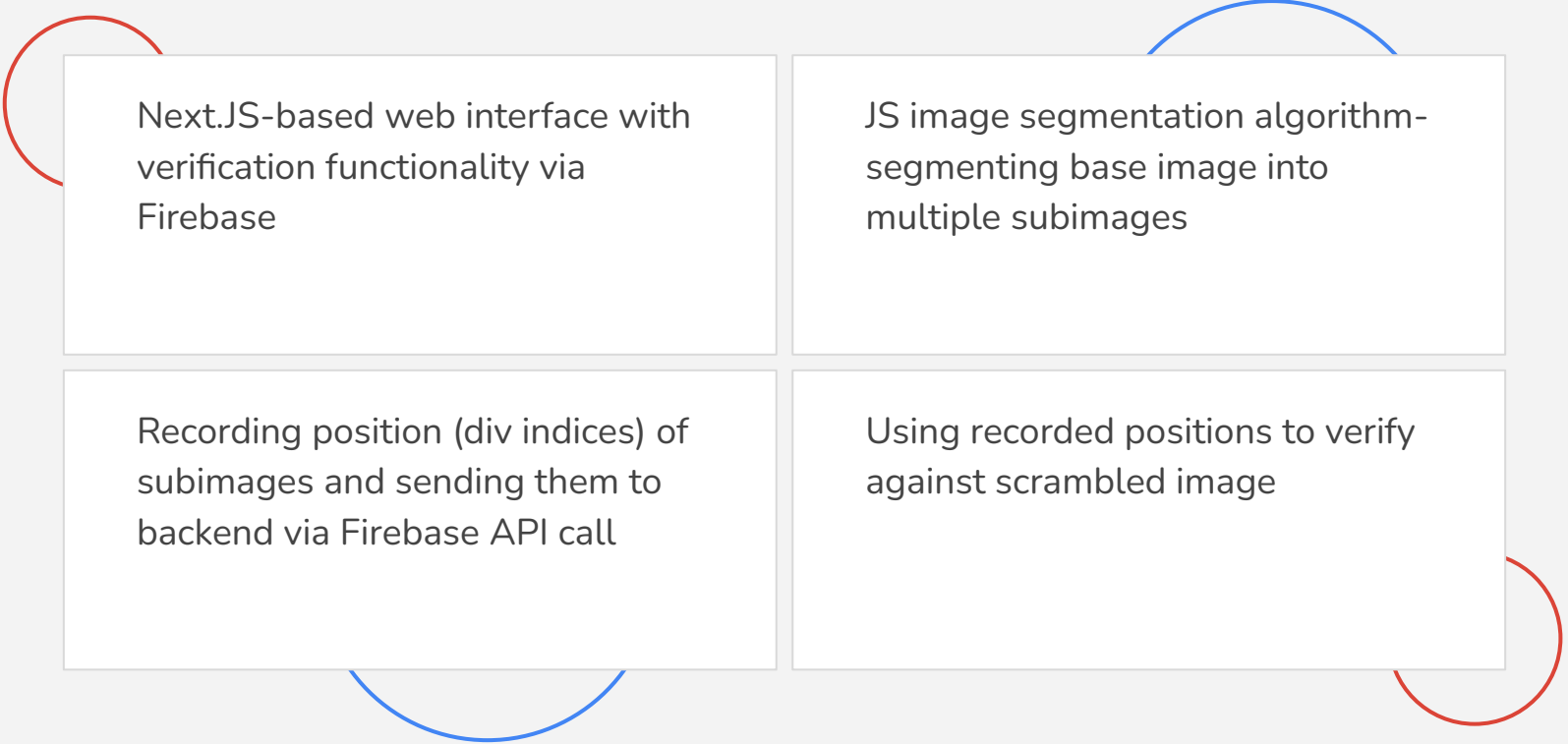
**Recap: What is a scrambler password?**



## Recap: Tech stack

- Frontend:
  - Next.JS
  - CSS
  - HTML
- Backend:
  - Next.JS
  - Firebase Cloud Firestore
  - Firebase Storage

# Implementation



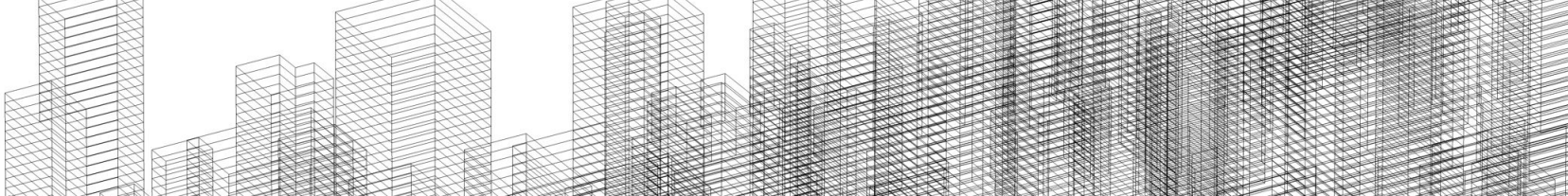
Next.JS-based web interface with verification functionality via Firebase

JS image segmentation algorithm-  
segmenting base image into  
multiple subimages

Recording position (div indices) of  
subimages and sending them to  
backend via Firebase API call

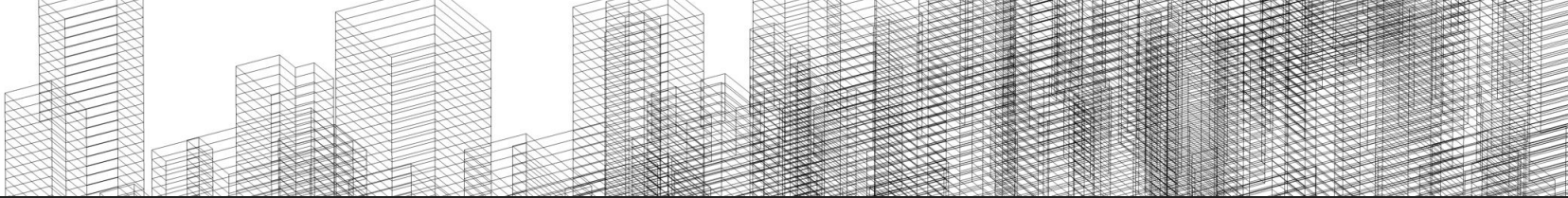
Using recorded positions to verify  
against scrambled image

## **Showcase: Demo and Code**



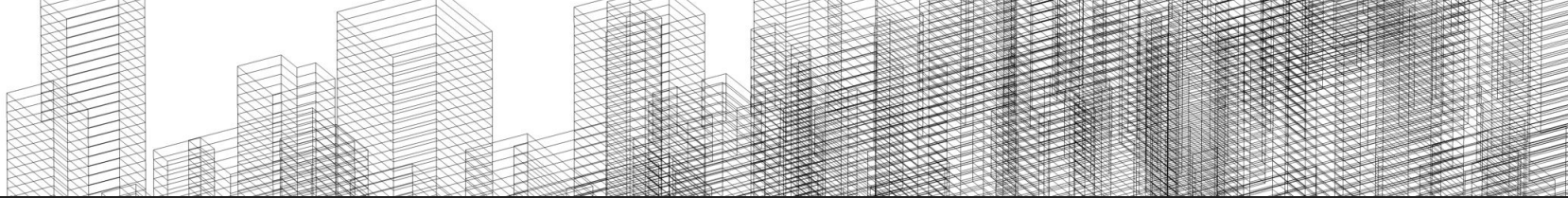
# Functional Requirements

- Checks if user is an authenticated user
- User must enter a valid email format
- User is shown image to scramble
- Email and selected image sent to database
- Image corresponding to user updates for sign in



# Non-Functional Requirements

- User interface scales with window size
- User login information stored in a secure database
- Multiple images displayable
- If authentication problem, corresponding error displayed
- Image scrambling as swap



# Summary of development experience

- Project goal
- Was it achieved?
- Blockers encountered:
  - Image processing
  - Storing and interpreting data that needed to be converted
  - New technologies



**Thank you, and  
have a great  
winter break!**

