



Alpha Presentation

Synthetic Image Generation via Random Noise

The Capstone Experience

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Fall 2022



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

Project Overview

- Insurance industry is evolving to require mass amounts of data
- Problem:
 - Lack of access to image datasets
 - Privacy concerns with image data
- Solution:
 - Utilize AI models to automate dataset generation
 - Provide users ability to fine tune models to fit their specific purposes

System Architecture

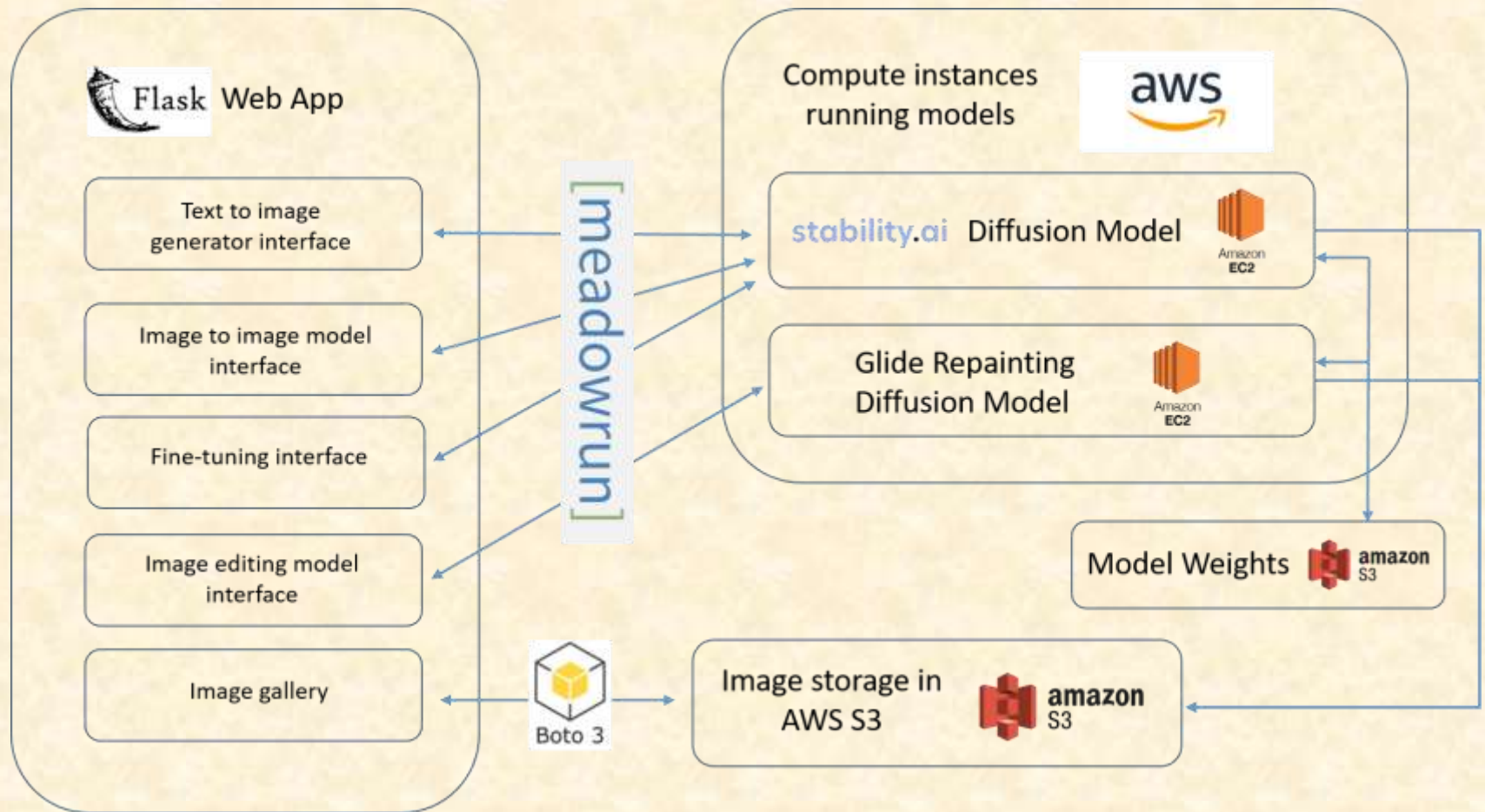


Image Generation

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localhost:8080/generator


Image Generator Synthetic Images Edit Image Create Model Image to Image

Model: Car Model Number of images: 3

Description: chevy impala

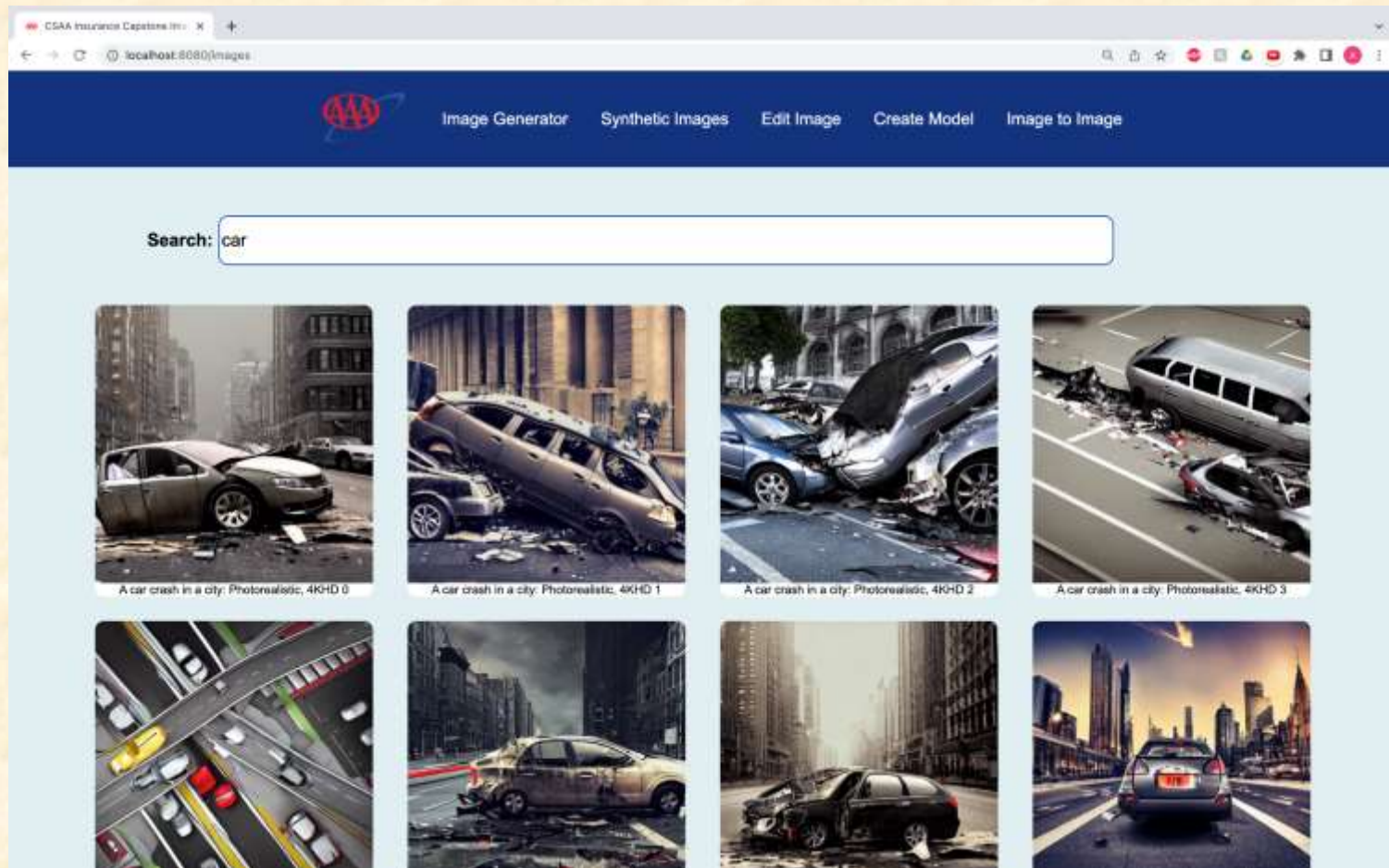
Generate

Download All

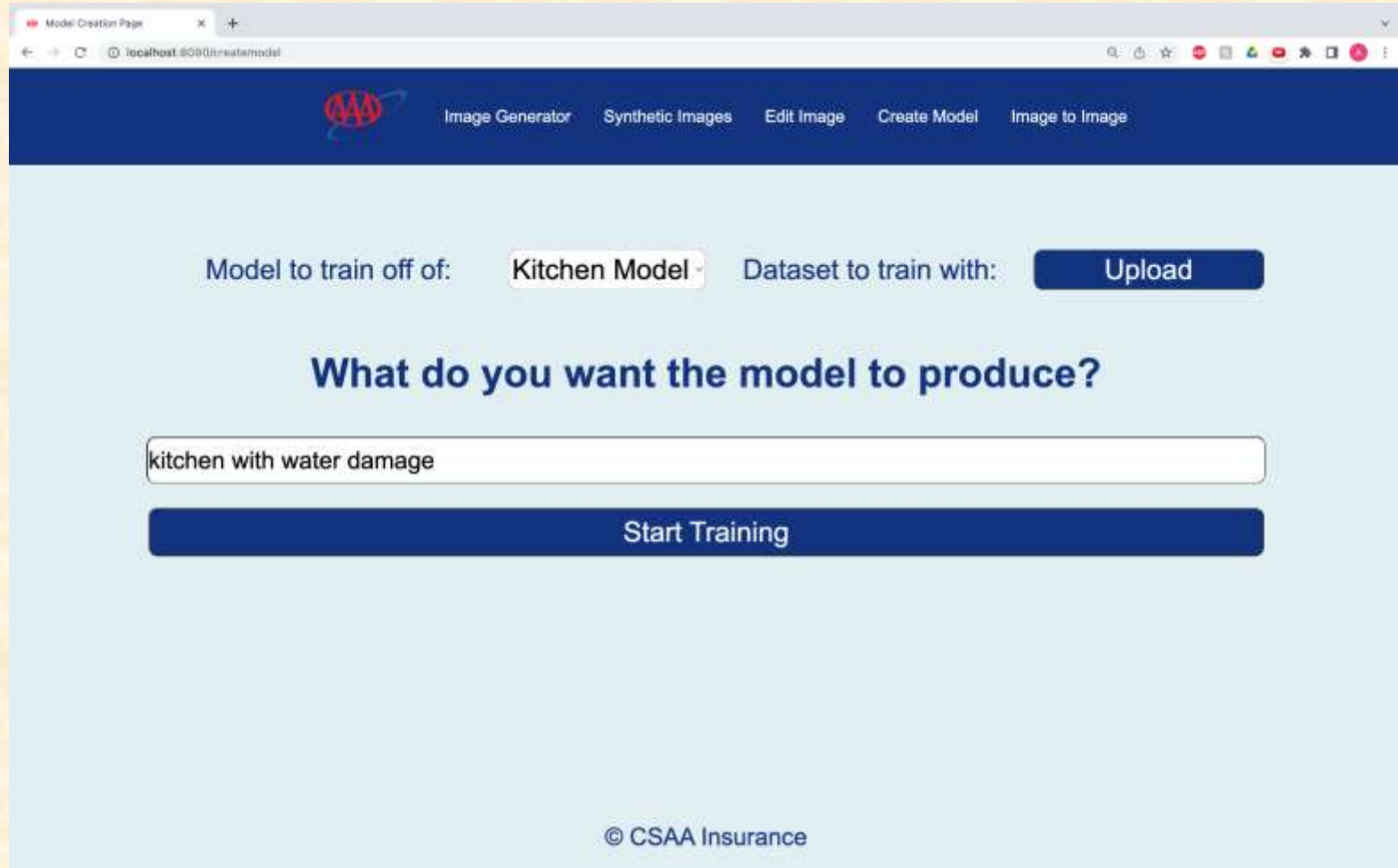


The image shows a web application interface for generating synthetic images. The browser window displays the URL 'localhost:8080/generator'. The application has a dark blue header with a logo and navigation links: 'Image Generator', 'Synthetic Images', 'Edit Image', 'Create Model', and 'Image to Image'. Below the header, there are input fields for 'Model' (set to 'Car Model'), 'Number of images' (set to '3'), and 'Description' (set to 'chevy impala'). There are two buttons: 'Generate' (dark blue) and 'Download All' (black). Below the buttons, three generated images of Chevrolet Impalas are displayed: a red coupe, a white coupe, and a teal and orange sedan.

Search & Edit Synthetic Images



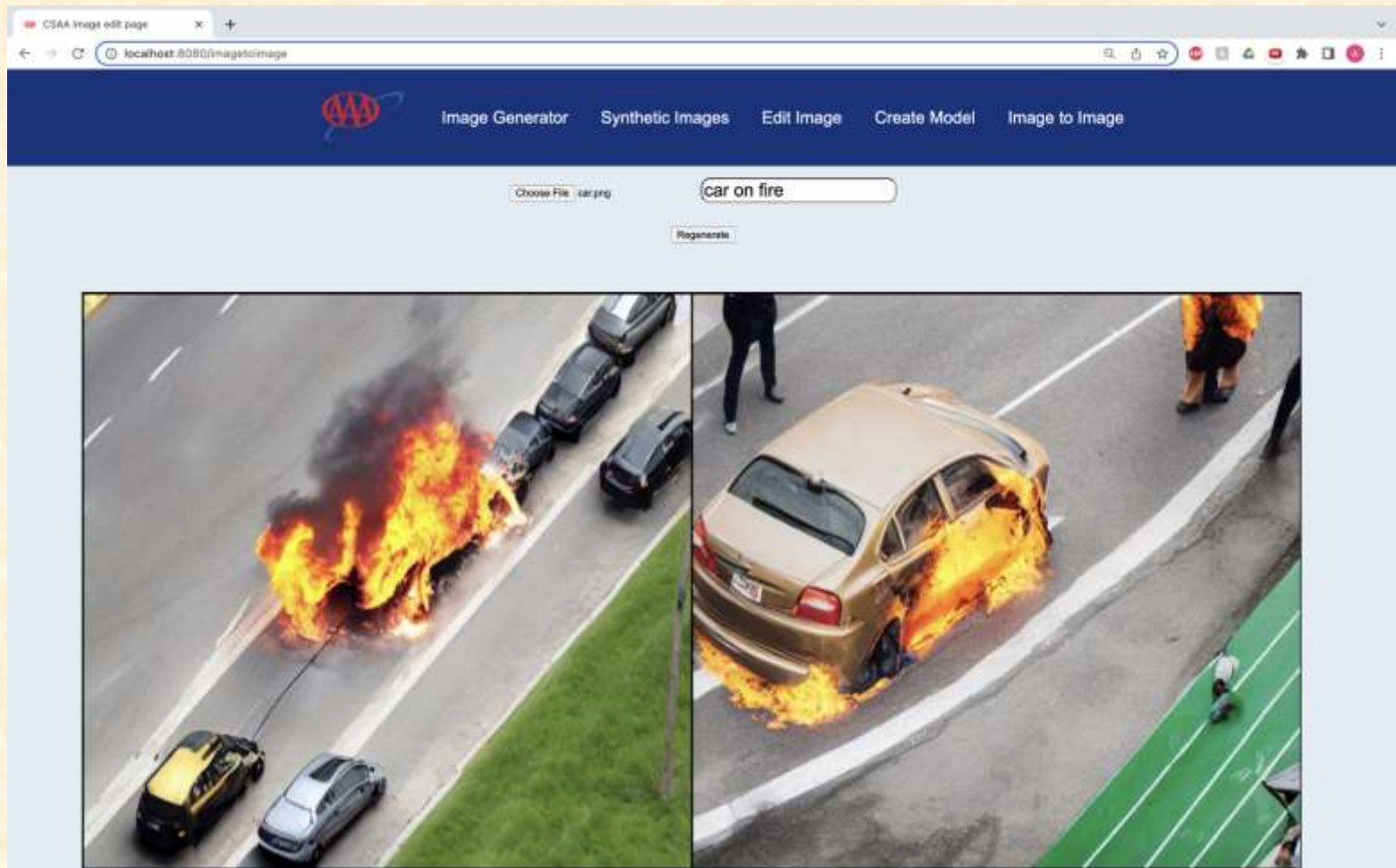
Creating & Training Models



The screenshot shows a web browser window with the address bar displaying 'localhost:8080/createmodel'. The page has a dark blue header with a logo and navigation links: 'Image Generator', 'Synthetic Images', 'Edit Image', 'Create Model', and 'Image to Image'. The main content area is light blue and contains the following elements:

- 'Model to train off of:' followed by a dropdown menu showing 'Kitchen Model'.
- 'Dataset to train with:' followed by a dark blue 'Upload' button.
- A bold heading: 'What do you want the model to produce?'.
- A text input field containing the text 'kitchen with water damage'.
- A large dark blue button labeled 'Start Training'.
- A footer at the bottom center: '© CSAA Insurance'.

Image to Image Generation



What's left to do?

- Create and store new model weights
- Allow users to select and regenerate a portion of an image
- Integrate glide model onto AWS and the website
- Create more quality of life features for webpage

Questions?

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