

Capstone Project Weekly Progress Report

Semester	Fall-2024 Semester 3rd
Course Code	AML-3406
Section	Section 1
Project Title	Car Damage Detection
Group Name	Group B
Student names/Student IDs	Sakshi (C0908000) Bansil Patel (C0912873) Harsh Mohile (C0912872) – TL Meet Patel (C0910378) Rachit Bhatt (C0902810)
Reporting Week	Week 3
Faculty Supervisor	William Pourmajidi

1. Grade the level of collaboration from different aspects between team members:
 (use: good, medium, below expectation)

Sakshi	Bansil Patel	Harsh Mohile	Meet Patel	Rachit Bhatt
Good	Good	Good	Good	Good

2. Tasks outlined in the previous Weekly Progress Report for this reporting week at the individual level and group level

2.1 Individual tasks (each team member)

Sakshi: Defining phases of project and analyzing post requirements of project.

Bansil Patel: Practicals of learning – Computer Vision.

Harsh Mohile: Research on Deployment Platforms.

Meet Patel: Learning GitHub Management.

Rachit Bhatt: Creating demo for CI/CD Pipeline.

2.2 Your team's tasks

- Initiate work on the project concepts.
- Understand the suitable deployment platforms.

3. Progress made in Reporting Week at an individual level and group level

3.1 Individual progress

Sakshi: Analyzed various phases of SDLC and Agile following Scrum with GitHub.

Bansil Patel: Motion Filtering, Edge Detection, OCR, Image Compression (PCA).

Harsh Mohile: Helped in implementation of CI/CD Pipeline Demonstration.

Meet Patel: Applied Git concepts to their personal demo environment.

Rachit Bhatt: Implemented a demonstration of CI/CD Pipeline.

3.2 Your team's progress

- Implemented CI/CD Pipeline Demonstration.
- Researched on concepts of Computer Vision.
- Initial understanding of GitHub.
- Initialized GitHub as per Agile Methodology.

4. The areas/tasks you could not make progress and/or complete as scheduled or the difficulties encountered in this reporting week at individual level and group level.

4.1 Individual project blockers

Sakshi: N/A

Bansil Patel: Understanding the concept of edge detection was challenging.

Harsh Mohile & Rachit Bhatt: A lot of trails were taken to fix minor bugs in implementing CI/CD Pipeline.

Meet Patel: Using Git commands was challenging in front User-Friendly GitHub interface.

4.2 Your team's project blockers

- Git on command-prompt.
- Time for testing CI/CD Pipeline.

5. Tasks to be completed in next week at individual level and group level

Learning VS Code will be a common task for the entire team in the next scrum.

5.1 Individual tasks

Sakshi: Learning VS Code + Learning GitHub.

Bansil Patel & Meet Patel: Learning VS Code + Exploring Dataset.

Harsh Mohile & Rachit Bhatt: Learning VS Code + Creating Branches for automation and deployment, and over Git Management.

5.2 Your team's tasks

- Adapting VS-Code as IDE for development and version control.
- GitHub Management.
- Exploring Dataset.

6. Include the tasks from your sprint planning (Github/Zenhub) for the present period.



Figure 1: Status Chart of GitHub Issues in Milestone

Since all of the tasks have not been completed, some of the tasks would be available in the next scrum.

7. Include charts/graphs (e.g., burn down charts) from your project management tool (Github/Zenhub) that shows your progress for the period of this report.

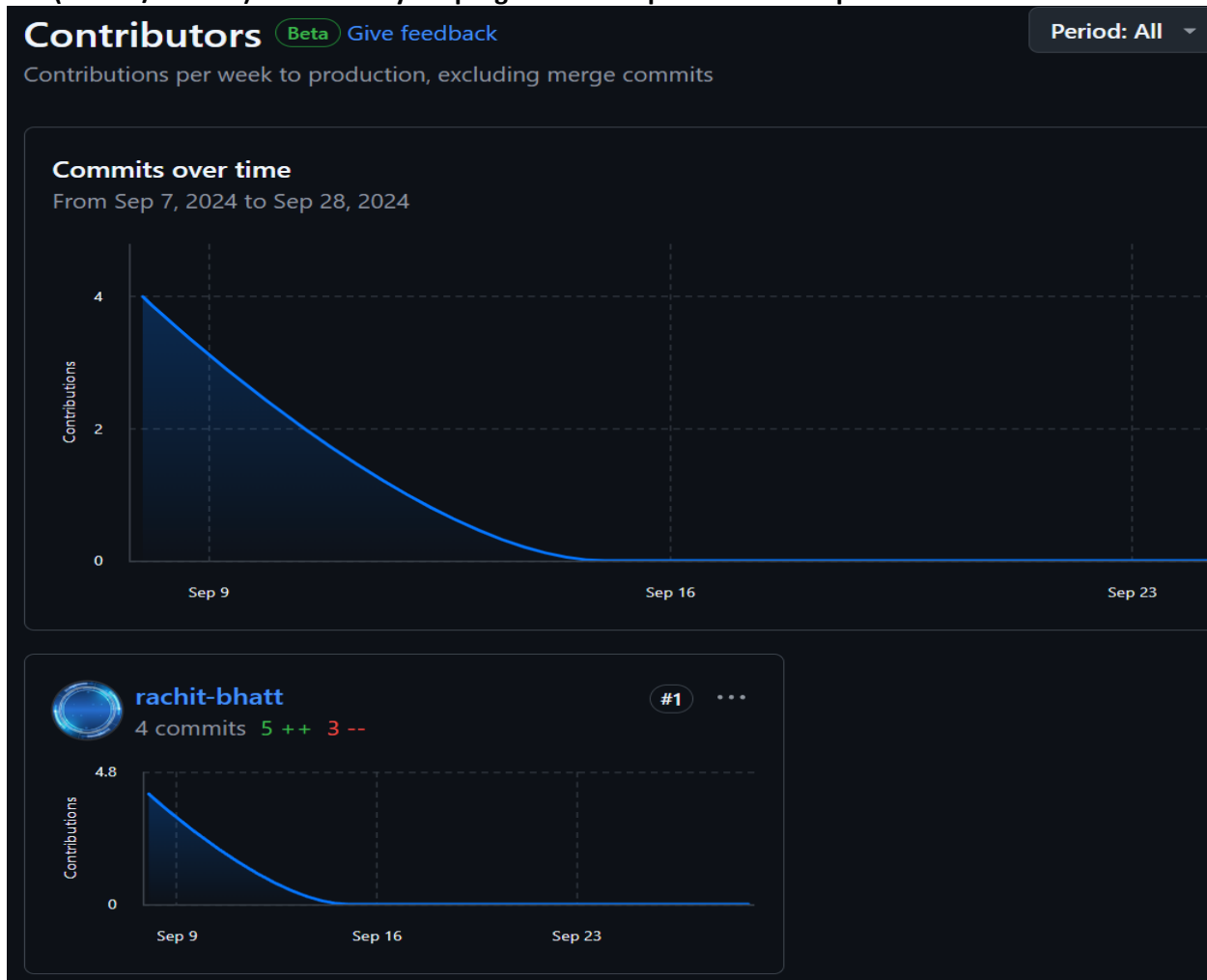


Figure 2: Highest Contributor of the Week

8. Include a note and address to your project Github with list of codes uploaded/updated on Github in this reporting week.

[GitHub](https://www.github.com/rachit-bhatt/Capstone-Project): <https://www.github.com/rachit-bhatt/Capstone-Project>

```

20     plt.imshow(images[i])
21
22     # Map the label index back to the original class name
23     label_index = labels[i].argmax() # Assumes one-hot encoding
24     class_name = next(key for key, value in cl.items() if value == label_index)
25
26     plt.title(f"Class: {class_name}")
27     plt.axis("off")
28     plt.show()
29
30
31 # Assuming test_ds is your dataset
32 plot_images_from_dataset(test_ds)
33

```

Found 248 images belonging to 3 classes.
{'01-minor': 0, '02-moderate': 1, '03-severe': 2}



Figure 3: Categories of Images of a Damaged Car.