

# Helmet Detection

## Project Description

This project focuses on detecting whether a rider is wearing a helmet or not. The system uses machine learning techniques to analyze images and determine the presence of a helmet on the rider's head, promoting safety and adherence to traffic regulations.

## Installation

To set up and run this project locally, follow these steps:

Clone the repository:

```
bash
```

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```
git clone https://github.com/your-username/helmet-detection.git
```

```
cd helmet-detection
```

Install required packages: Ensure you have Python installed. Install the required packages using pip:

```
bash
```

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```
pip install -r requirements.txt
```

Run the Jupyter Notebook: Open the provided Jupyter Notebook to explore the code and run the model.

```
bash
```

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```
jupyter notebook helmet_detection.ipynb
```

Usage

Once you have set up the environment, you can use the provided Jupyter Notebook to:

Load and preprocess the dataset.

Train the helmet detection model.

Test the model on sample images to see if the rider is wearing a helmet or not.

License

This project is licensed under the MIT License. See the LICENSE file for details.

Contributing

Contributions are welcome! Please fork the repository and create a pull request with your changes. For major changes, please open an issue first to discuss what you would like to change.

## Contact

For any questions or issues, feel free to reach out via email at - [shreejitcs@gmail.com](mailto:shreejitcs@gmail.com)