

A1

Project Preference order

1. Intelligent Simple Object Detection and Anonymous Privacy Protection Feature for unclassified images/photographs loaded to a project and gallery Swipe or Blur rule
2. Deep Learning for Estimating Lane Line Quality Using Retroreflectometer Ground Truth
3. Reinforcement Learning for Road Sign Detection and False Positive Elimination

Initial Strategy to implement Project 1:

1. **Apply an object detection model:** Use a pre-trained or custom object detection model to identify various objects within the image.
2. **Extract text using OCR:** Implement Optical Character Recognition (OCR) to detect and extract any text from the image, ensuring sensitive information is identified.
3. **Train models for additional object identification:** Train deep learning models to identify other objects or areas of interest in the image that need protection.
4. **Blur sensitive regions:** Create bounding boxes around detected objects or text and apply blurring or other privacy-preserving techniques to obscure them, ensuring anonymity.
5. Then we can package our solution with some UI so it becomes easy for end user to use.

Experience

1. I want to work on this project because I understand the direction to take to implement the project and I have some prior experience in it.
2. I understand how CNN models work and have learned deep learning through my coursework.
3. I've worked on machine learning projects in the industry, including classification and time series forecasting.
4. I've also used LLMs for classification tasks.
5. I have 5 years of experience as a data scientist and am skilled in Python.

Note:

I am also interested in Project 2 and Project 3, but I do not fully understand the scope of either. For Project 3, I have minimal knowledge of DQN, so I'm unsure if I can attempt it. However, I would love to give it a try if we have some guidance or direction to explore.