**Project 4 Proposal**

Team Members:

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Requirements:

* Find a problem worth solving, analyzing, or visualizing.
  + The accuracy of ML Detection of AI vs Human Images
    - This project leverages machine learning to develop a model capable of accurately identifying whether an uploaded image was created by artificial intelligence or a human artist.
* Data and data delivery
  + <https://www.kaggle.com/datasets/alessandrasala79/ai-vs-human-generated-dataset/data?select=test.csv>
  + example/sample code: <https://www.kaggle.com/code/sheemamasood/techpulse-ai-vs-human-final-submission>
* Tools & Technologies:
  + Programming Language: Python
  + Libraries: TensorFlow/Keras, Torch, Scikit-learn, Matplotlib, Flask
  + Platforms: Google Colab, Jupyter Notebook
  + DB/Warehouse: postgresSQL or AWS S3
* Model Training:
  + Implement a neural network using TensorFlow/Keras or Torch
  + Train the model on selected dataset and optimized for classification accuracy
  + Record metrics for accuracy, precision, recall scores
* Visualizations: Things that would be cool:
  + During class, upload an image realtime and see if it’s AI or real:
    - Flask/HTML = run it through the testing engine
  + Show a scatter plot of INCORRECTLY tested imagery:
    - When you hover over the point, you’d see the image, so you can see if there is a certain type of image that is consistently graded wrong.
    - Are we able to “tune” the algorithm to improve those misclassifications?
  + Show a chart that classifies the “missed” images:
    - What percent were people? Landscapes, etc. Any identifying features…
* Group presentations
* Slide deck