Visual Action	Spoken Script	Estimated Time
Identity Check (Webcam full screen)	(Show face for 3-5 seconds) **Hello. My name is Fabio Prumucena and this is the verification video for Assignment 3: The Final Data Analytics Project.**	5 seconds
Notebook Execution (Switch to screen recording)	**I will now run the entire notebook end-to-end to demonstrate the reproducibility of the results.** (Run all cells using "Run All"—*fast-run* is acceptable, allowing for a brief wait during training.)	10 seconds
1. Preprocessing (Scroll to *Scaling* Cells)	**Starting with preprocessing.** The Seeds dataset was split 80/20 using **stratification** to ensure class balance in both sets. The crucial step was the application of the **StandardScaler**. It's essential that all 7 numerical features are normalized before feeding them into the neural network.	25 seconds
2. Network Architecture (Scroll to the `model.add()` cell)	**This is the chosen Feed-Forward architecture (FFNN).** We used an MLP with 7 inputs and **two hidden layers** (64 and 32 neurons), utilizing **ReLU** activation. The final layer has 3 outputs with **Softmax** activation, which is correct for our three-class classification problem. We applied **Dropout** of 0.3 for regularization.	35 seconds

3. Train/Validation Curves (Scroll and Pause on the first Plot)	**The training curves show the performance of our base model.** The training and validation loss and accuracy converge well. The slight divergence between the curves indicates that the **Early Stopping** technique was key to preventing overfitting after roughly 50 epochs.	30 seconds
4. Hyperparameter Comparison (Scroll to the second Plot)	**For hyperparameter comparison, we tested Dropout at 0.2 vs 0.4.** The comparative plot clearly shows that the variant with **Dropout 0.2** had a more stable validation performance and achieved a higher final accuracy, leading us to select it for final evaluation.	25 seconds
5. Metrics and Matrix (Scroll to the Results Cells)	**In the final evaluation, the best model achieved an accuracy of [State the Accuracy Value] on the test set.** For a classification problem, we prioritize the **F1-Score**. The confusion matrix confirms the network has excellent performance, but shows some mild confusion between [Mention a specific confusion, e.g., Class 1 and Class 3].	35 seconds
6. Interesting Result (Focus on the Classification Report or Confusion Matrix)	**(10-15 seconds)** The most interesting result was the model's performance on **Class 1 (Kama)**. While overall accuracy is high, the **Precision for Class 1 is slightly lower** than the others. This suggests the model is more prone to incorrectly labeling other seeds as Kama type. A future improvement would be to use class weighting to address this minor bias.	15 seconds

Closing (Switch to webcam or closing screen)	**This concludes the verification of the FFNN project.** Thank you.	5 seconds
TOTAL		**~ 2:50 minutes**