🎓 Week 14: AI Final Project Oral Presentation Guide

https://github.com/kaopanboonyuen/SC310005_ArtificialIntelligence_2025s1

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Title Page

- 🏷️ Project Title: Clear, short, impactful
- 👥 Team Members: Names & IDs
- 📅 Date: Final Presentation

💡 *Make your project name simple and professional.*

Objectives & Goals

- 🎯 Main project goal (1 sentence)
- 📌 Sub-objectives (2–3 points)
  - Example: *Classify images, recommend products, predict values*

Approach / Methodology

- ⚙️ What AI method are you using?
  - ML 🧱 | Deep Learning 🖼️ | LLMs 📖 | GenAI 🎨 | RL 🎲
- 📚 Why did you choose this method?

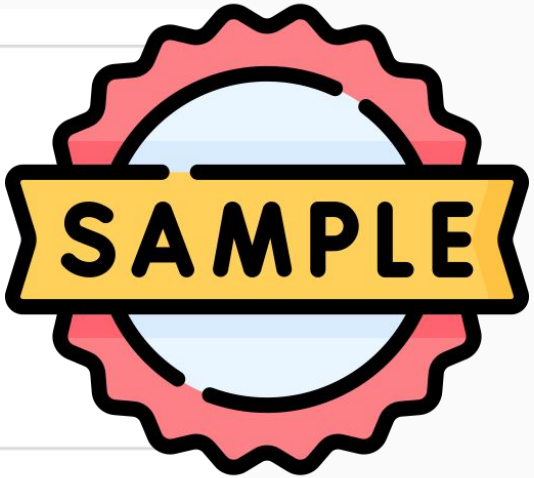
💡 *Show as a flowchart or diagram.*

Dataset & Preprocessing

- 📂 Dataset source (open dataset / collected data)
- 🔍 Data preprocessing (cleaning, augmentation, splitting)
- 📊 Example visuals (sample images, table snapshot)

Title Page

- 🦖 Dinosaur Classification with Vision Transformers
- 👥 Team Members: Kao, Sam Atman, Mark Zaukerburg
- 📅 Final Presentation – SC310005 AI 2025



Objectives & Goals

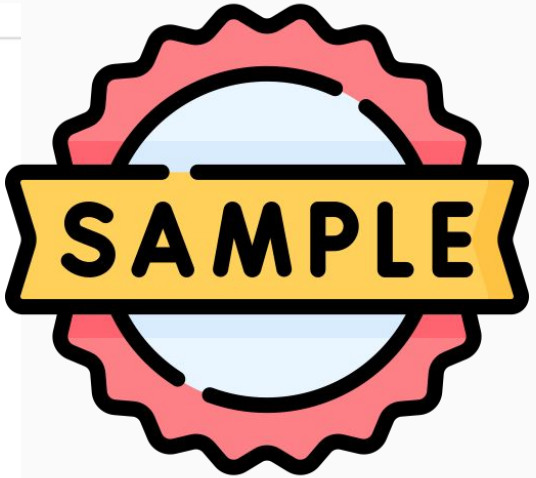
- 🎯 Build a model to classify dinosaur images into species categories
- 📌 Sub-goals:
  - Collect and preprocess dinosaur image dataset
  - Train a Vision Transformer for multi-class classification
  - Evaluate model performance with accuracy & F1-score

Approach / Methodology

- ⚙️ Computer Vision + Deep Learning
- 🖼️ Model: Vision Transformer (ViT)
- 🔗 Libraries: PyTorch, Hugging Face Transformers
- 📚 Why ViT?
  - Captures global context better than CNNs
  - Excellent for image classification tasks

Dataset & Preprocessing

- 📂 Dataset: Dinosaur Dataset from **Roboflow**
- 🦕 10 classes (e.g., T-Rex, Stegosaurus, Velociraptor)
- 🔍 Preprocessing:
  - Resize images to 224×224
  - Normalize pixel values
  - Augmentation: rotation, flip, random crop



Where to Find Public Datasets

- 🌐 **Kaggle** → ML competitions, structured datasets
- 🖼️ **Roboflow** → Computer Vision datasets
- 🤗 **Hugging Face** → NLP & multimodal datasets
- 📊 **AI Meta / Google Dataset Search** → research-level data
- 💡 Tip: Always cite your dataset properly

Model Architecture

- 🏗️ Model type: CNN / Transformer / YOLO / LLM / etc.
- 📐 Diagram of architecture or pipeline
- ⚡ Tools used: PyTorch, TensorFlow, Hugging Face, etc.

Evaluation Metrics

- 📏 Which metrics do you use?
  - Accuracy ✅
  - Precision / Recall / F1 ⚖️
  - RMSE / MAE 📉 (for regression)
- 🧱 Why this metric fits your problem

Results & Experiments

- 📊 Graphs or tables for results
- 🔍 Compare baseline vs improved model
- 🎨 Show predictions or outputs (images/text)

💡 *One chart + one example > too many numbers.*

Demo (Optional but Recommended)

- 🖥️ Live demo or recorded video
- 🚀 Show your system in action

Discussion

- 🔎 Strengths of your approach
- ⚠️ Limitations or challenges
- 💡 Future work / improvements

Acknowledgements & References

- 🙏 Thanks to dataset providers, APIs, or libraries used
- 📚 Cite papers or tools (APA/IEEE style, short format)

Q&A

- ❓ Invite questions from the audience
- 💬 Be ready with backup slides (extra details: confusion matrix, parameters, training logs).

⭐ Tips for Success

- 🔤 Less text, more visuals (graphs, images, diagrams)
- ⏱️ Time: 8–10 mins per group
- 🎙️ Speak clearly, explain simply (avoid jargon)
- 🖼️ One key idea per slide

Q&A
in Final AI Project?