42Amman AI Hackathon:
Face Recognition Challenge

Objective

Build a face recognition system that identifies whether an uploaded photo matches a student from 42Amman based on their 42 profile picture.

Tools & Libraries Required

- - Kaggle Notebook (with GPU enabled)
- - FastAI, Jupyter Notebooks
- - 42 API, requests, PIL, face_recognition (optional)

Setup Instructions

- - Sign up and log into Kaggle
- - Enable GPU: Account > Settings > Notebooks > Enable GPU
- - Fork the starter notebook shared by organizers
- - Use 42 API OAuth credentials to fetch profile pictures

Project Structure

- - notebooks/
- - ├── training.ipynb
- - └── inference.ipynb

Timeline

- - Day 1 Morning: Kickoff, FastAI & API intro, picture fetching
- - Day 1 Afternoon: Preprocessing, training with cnn_learner
- - Day 2 Morning: Inference notebook and testing
- - Day 2 Afternoon: Demos, presentations, judging, awards

Expected Deliverables

- - Face recognition model using FastAI

- - Notebook with training and inference sections
- - Clear visualizations and predictions
- - Link to Kaggle Notebook

Instructions to Participants

- - Use cnn_learner with resnet34 for training
- - Explore Siamese networks as a creative enhancement
- - Use learn.predict for image inference
- - Clean data with verify_image

Submission Guidelines

- - Submit Kaggle Notebook link
- - Notebook must include training, inference, predictions
- - Add clear visualizations and concise documentation

Evaluation Criteria

- - Model Accuracy: 30 pts
- - Code Quality: 20 pts
- - Creativity: 20 pts
- - Demo Presentation: 20 pts
- - Teamwork: 10 pts

Optional Enhancements

- - Implement Siamese Network
- - Live camera photo capture for inference
- - Deploy trained model via web interface

Resources & References

- - FastAI documentation
- - Kaggle tutorials
- - 42 API documentation