

Final Year Project Ideas - Class of 2024-2025

Lebanese University · Data Science

Interactive Voice Call with AI Celebrity Clone

Category: Machine Learning

By: Mohamad Ali Oussayli, Maryam Al Saghir

A real-time voice conversation system that replicates a celebrity's voice and speaking style in Lebanese Arabic dialect. Users can have natural interactive conversations through speech recognition, AI-powered responses, and voice conversion technology via a web interface.

AI-Powered ER Medication Advisor

Category: Machine Learning

By: Sally Saleh, Huda Srour

A two-stage AI system that provides safe and effective drug recommendations for emergency room patients. Uses vector-based similarity techniques to generate top drug recommendations tailored to patient conditions and history, incorporates drug-interaction safety checks, and leverages large language models to predict potential adverse drug reactions. Features an interactive interface to assist ER staff in making informed medication decisions.

Deep Learning-Based MRI Analysis for Parkinson's Disease Detection

Category: Deep Learning

By: Doha Fawaz, Hanine Younis, Mahmoud Abou Daher

A medical AI system that analyzes brain MRI scans to detect early signs of Parkinson's Disease. Helps doctors identify the disease earlier by automatically analyzing MRI images and providing diagnostic predictions through an easy-to-use interface where users can upload scans and receive instant analysis.

Automated Medical Transcription & Form Generation System

Category: Natural Language Processing

By: Lynn Chakaroun, Esraa Haydar

An NLP-powered system that automates medical documentation by converting audio recordings into structured EMR forms. Uses Whisper for speech-to-text transcription, handles medical terminology, extracts entities like patient details, symptoms, medications, diagnosis, and treatment plans through regex-based rules, and generates editable forms with PDF export. Reduces clinician documentation time and minimizes manual errors.

QS Global University Rankings Analysis

Category: Data Science

By: Yaman Shiha, Mohammad Tellawi

A data science project analyzing QS World University Rankings using clustering and classification models to identify performance patterns, predict ranking tiers, and extract insights on factors driving academic performance globally and in Lebanon.

Face Recognition System for Campus Access and Student Management

Category: Computer Vision

By: Sophie Aoun

A smart campus system that uses facial recognition to automatically identify students entering campus, display their personalized academic information and milestones, and provide administrators with real-time attendance monitoring and security insights through an interactive dashboard.

UniVerse - AI Chatbot for Lebanese Universities

Category: Artificial Intelligence

By: Rim Chehade, Karen Timani

An intelligent agentic RAG-based chatbot that helps students explore and compare Lebanese universities. Answers questions about tuition fees, programs, scholarships, and admission requirements by retrieving information from official university websites and generating accurate, context-aware responses using semantic search and web fallback capabilities.

AI-Powered Sign Language Learning Platform

Category: Artificial Intelligence

By: Aya Ghazi, Sally Kreik

An interactive website that teaches sign language from scratch, enhanced with AI features to create an engaging and personalized learning experience for beginners.

DataRoad - AI-Powered Educational Platform

Category: Artificial Intelligence

By: Lara Al Khansa, Ali Houmani

A comprehensive learning platform for data science students featuring course roadmaps with interactive quizzes, AI tutors that guide rather than provide direct answers, handwritten notes converter, and complete curriculum resources. Designed to help students focus on practical skills through guided learning.