

**Example course project topics from recent years (in no particular order)**

Face and Facemask Detection

Stitching and segmenting drone map

Controlling a robot with hand gestures

Lane Line Detection

Monocular 3D Object Tracking with Fiducial Markers

Detect the winning hand of a completed round of poker

Visualization and Quantification of Red Blood Cell Membrane Fluctuation with Motion Amplification

Document Scanner with Image Preservation and Text Recognition

Trajectory estimation from sequential image frames

Virtual Drum Simulator

Convert pictures of analog clocks into digital time

Pothole Detection

Covid-friendly kiosk

FutureHAUS Power System Object Detection

Credit Card OCR Number Detection

Leaf Disease Classification

Catan Strategizer

Face recognition with SIFT

Human Face Completion

Traffic Light License Plate Identification

Playing Card Detection for Tabletop Card Games

Detection and Classification of Dust Particles on Microscope Images

Social distance detection using Deep Learning

Food Recognition from Images

Motion Deblurring and Depth Mapping for use in Visual Effect Filter Design

Trespasser Detection

Facial Keypoints Detection

Human Pose Detection and Skeleton Mapping

Football Player Detection in a Video

License Plate Detection

Fast Monocular Depth Estimation

Object Detection in Thermal Images and its Potential Applications in Surveillance Systems

Visual State Space Detection for Street Fighter 2

Music note identification from spectrograms

Feature-based Monocular Visual Odometry

Object Detection in Adverse Weather Conditions

Road Lane Marking Detection and Classification

Unnatural pattern recognition and data smoothing of satellite AOD data

Assessing the Performance of Image Fusion Software on Different Photo Sets

The Room Mapper

Evaluating X-Ray Data to Classify and Localize Different Thoracic Conditions using a Deep Convolutional Neural Network

Stereo depth sensing using heterogeneous cameras

Invisibility Cloak using Computer Vision

Night Sky Analysis for Celestial Navigation

Automatic Tracking Animal Motion Trajectory Based on Deep Learning Method-Transfer Learning

Text Detection From Images

Super Resolution: A Deep Dive

Face detection and emotion recognition

Automatic detection of edamame pods using YOLO

Visual Search Based Recommendation System

Piano Key Recognition Through a Piano Performance Video.

Poker Hand Image Classification

Classification of Computed Tomography for COVID-19 testing using a Convolutional Neural Network

Utilize Computer Vision and Deep Reinforcement Learning for operating agent in unknown environments

Rubik's Cube Detection

Optical Character Recognizing Calculator

Mask Detection in the Covid Era

Rubik's Cube Recognition

Motion Detection

Finding traffic lights

Face Finding for Camera Tracking

Image Classification of Pedestrians

Lane & Object Detection in Adverse Climate for Autonomous Vehicles

Facial detection and identification for celebrities

Edge and Region Detection for Geographical Maps

Activity Recognition

An Artificial Intelligence driven object recognition program to identify birds, planes, and Superman

Detecting view changes in Virginia traffic camera video

Deep Low Light Image Enhancement

Emotional Expression Recognition with and without Masks

WildLife Animal Detection for Hiking/Safaris