RK INFO SYSTEMS
INNOVATION IS WHAT WE ARE

Image Classification

a.) Real-time face detection and Emotion / Gender classification

GitHub Repository : **Access Code Here**

Image Generation

a.) Restore colors in B&W photos and videos

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

b.) Handwriting Generation From Text

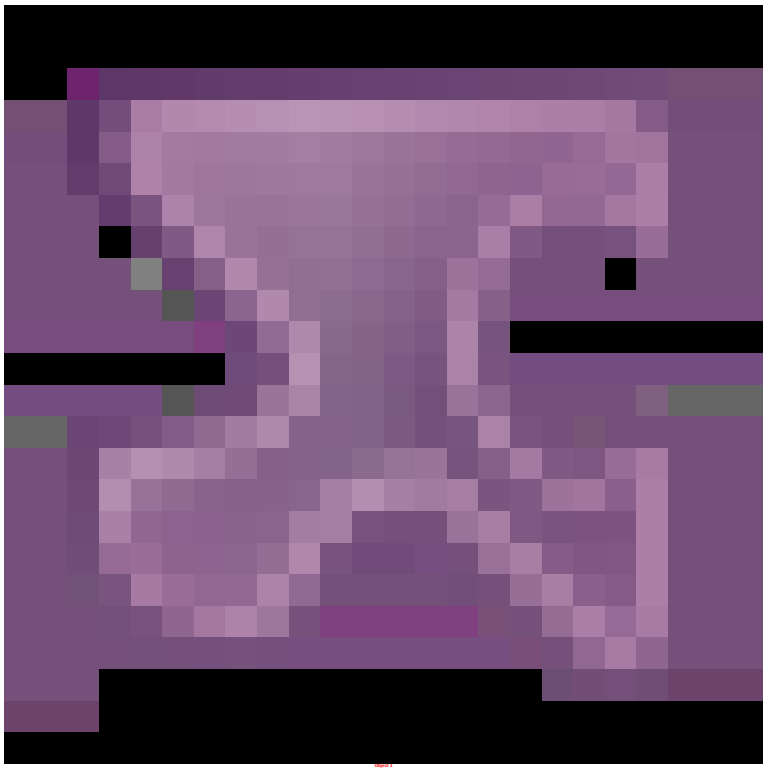
GitHub Repository : **Access Code Here**

c.) Image Completion with Deep Learning

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

d.) 3D Face Reconstruction from 2D Image



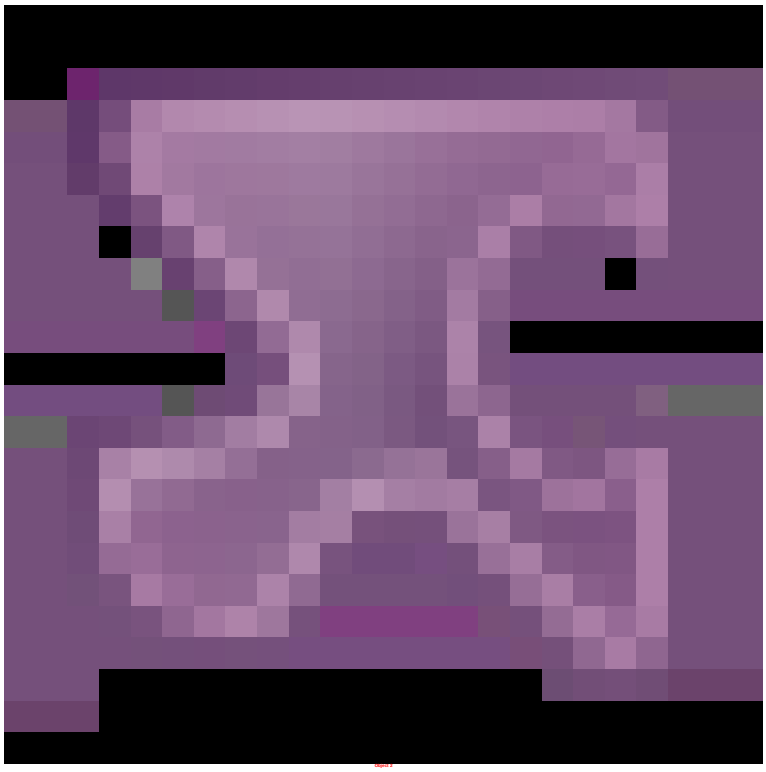
GitHub Repository : **Access Code Here**

e.) Text-to-Image-Synthesis using Generative Adversarial Network

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

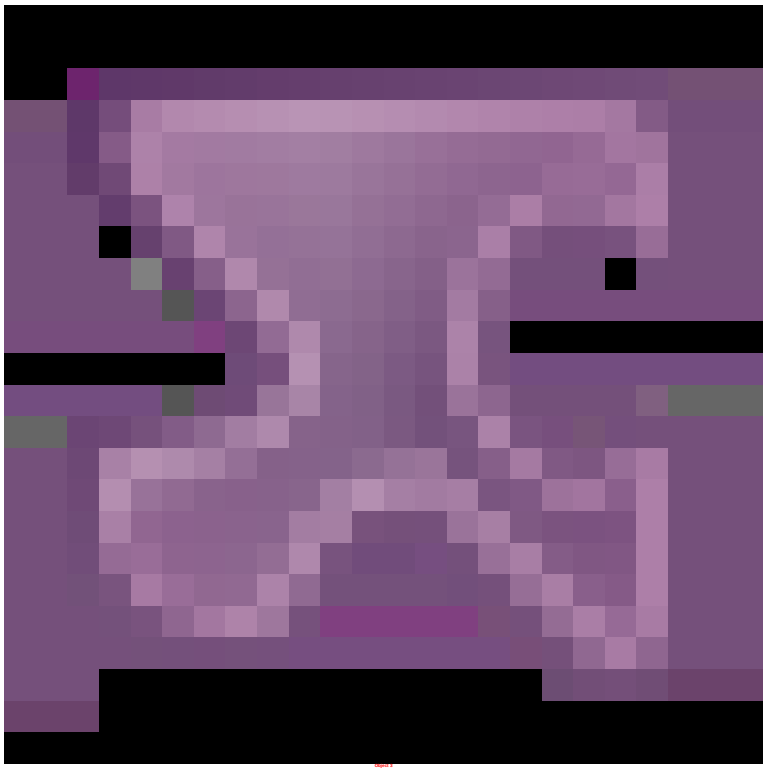
f.) Generating Human Faces – Progressive Growing of GANs for Improved Quality, Stability, and Variation



GitHub Repository (TensorFlow) : **Access Code Here**

Image Recognition

a.) Face Alignment – Detect facial landmarks using a face alignment network



GitHub Repository : **Access Code Here**

b.) Visual Question Answering – QA from Image

GitHub Repository : **Access Code Here**

c.) Evaluating Handwritten Math from Image

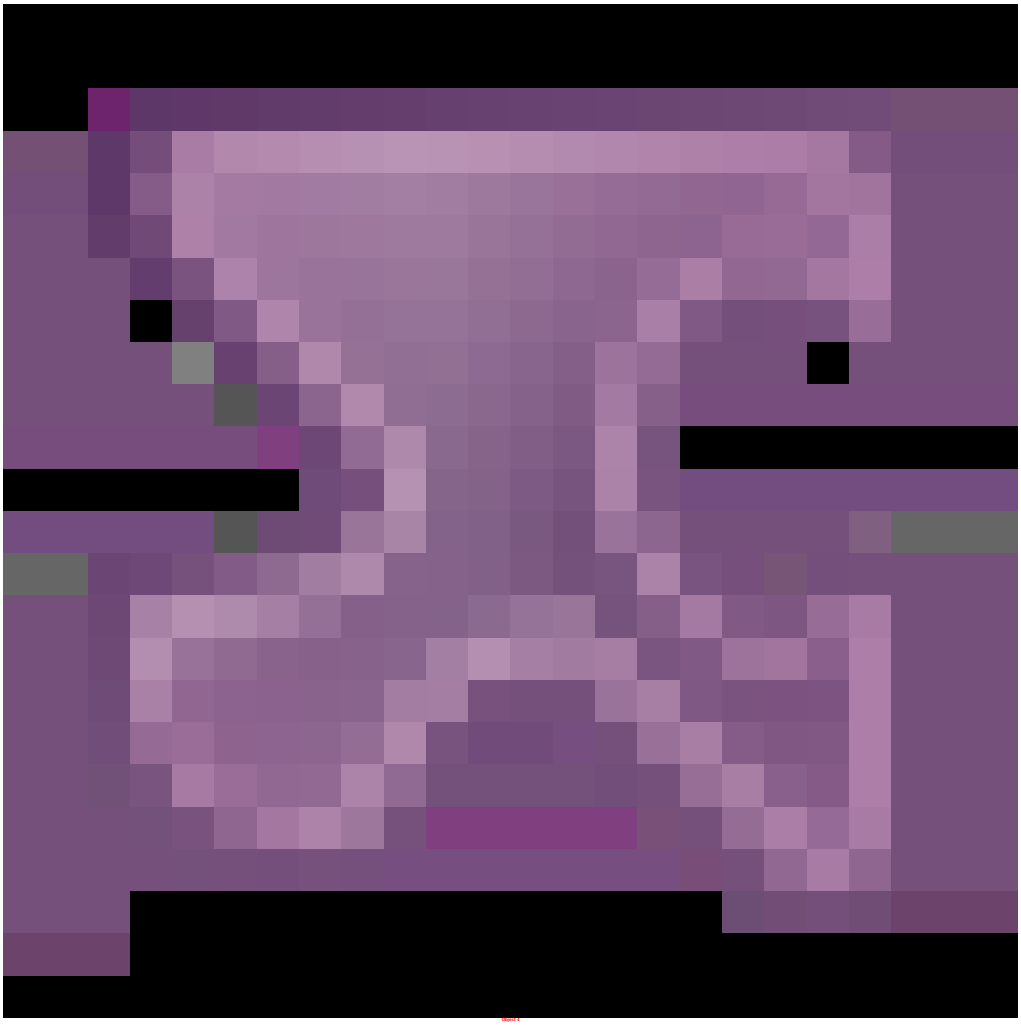
GitHub Repository : **Access Code Here**

d.) Real-time multi-person pose estimation

GitHub Repository (Tensorflow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

f.) Real-time analysis of behavior of crowded area



GitHub Repository : **Access Code Here**

2.) Audio, Speech Processing

Audio signal processing or audio processing is the intentional alteration of audio signals often through an audio effect or effects unit. As audio signals may be electronically represented in either digital or analog format, signal

processing may occur in either domain. Analog processors operate directly on the electrical signal, while digital processors operate mathematically on the digital representation of that signal.

Speech recognition is the inter-disciplinary sub-field of computational linguistics that develops methodologies and technologies that enables the recognition and translation of spoken language into text by computers. It is also known as automatic speech recognition (ASR), computer speech recognition or speech to text (STT). It incorporates knowledge and research in the linguistics, computer science, and electrical engineering fields. Source: Wiki

Audio Classification

a.) Urban Sound Classification – Classify Type of Sound

GitHub Repository : **Access Code Here**

Audio Generation

a.) Restoring Sound in a video – Lip Reading

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

b.) Learning Lip Sync from Audio

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

c.) WaveNet – DeepMind

GitHub Repository : **Access Code Here**

d.) Magenta – Make Music and Art Using Machine Learning

GitHub Repository : **Access Code Here**

e.) Composing Music

GitHub Repository (Keras) : **Access Code Here**

3.) Text Processing

In computing, the term **text processing** refers to the discipline of mechanizing the creation or manipulation of electronic text. ***Text*** usually refers to all the alphanumeric characters specified on the keyboard of the person performing the mechanization, but in general *text* here means the abstraction layer that is one layer above the standard character encoding of the target text. The term ***processing*** refers to automated (or mechanized) processing, as opposed to the same manipulation done manually.

Text processing involves computer commands which invoke content, content changes, and cursor movement, for example to

- search and replace
- format
- generate a processed report of the content of, or
- filter a file or report of a text file.

Text Generation

a.) Text / Word Generation With LSTM Recurrent Neural Networks

GitHub Repository : **Access Code Here**

Natural Language Processing

a.) End-To-End Memory Networks for Question Answering

GitHub Repository : **Access Code Here**

Text Classification

a.) Sarcasm detector

GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**

b.) Sentiment Analysis

GitHub Repository (TensorFlow) : **Access Code Here**

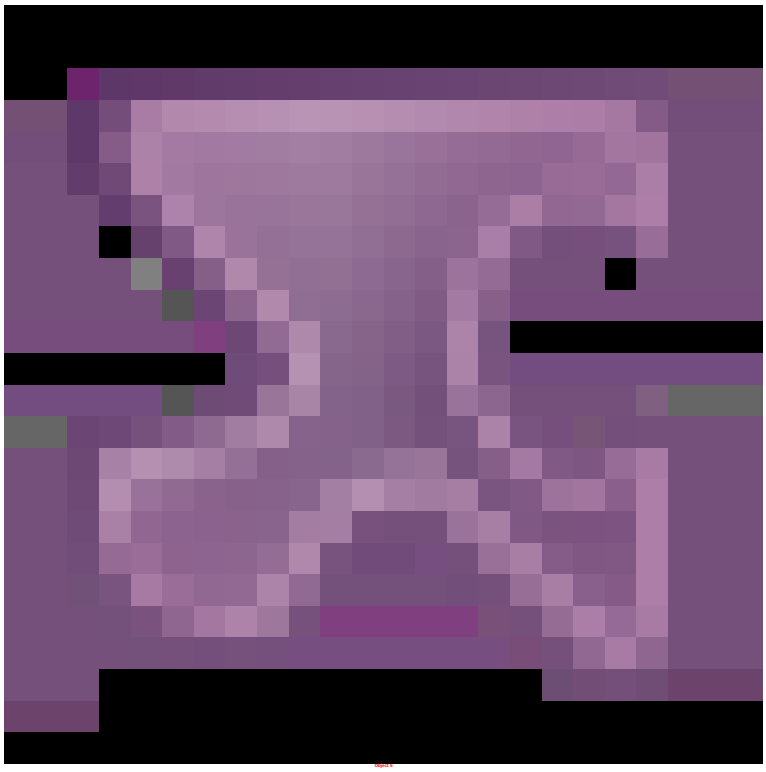
GitHub Repository (Keras) : **Access Code Here**

Further More Deep Learning Projects To Explore

a.) Predicting Cryptocurrency Prices

GitHub Repository (Keras) : **Access Code Here**

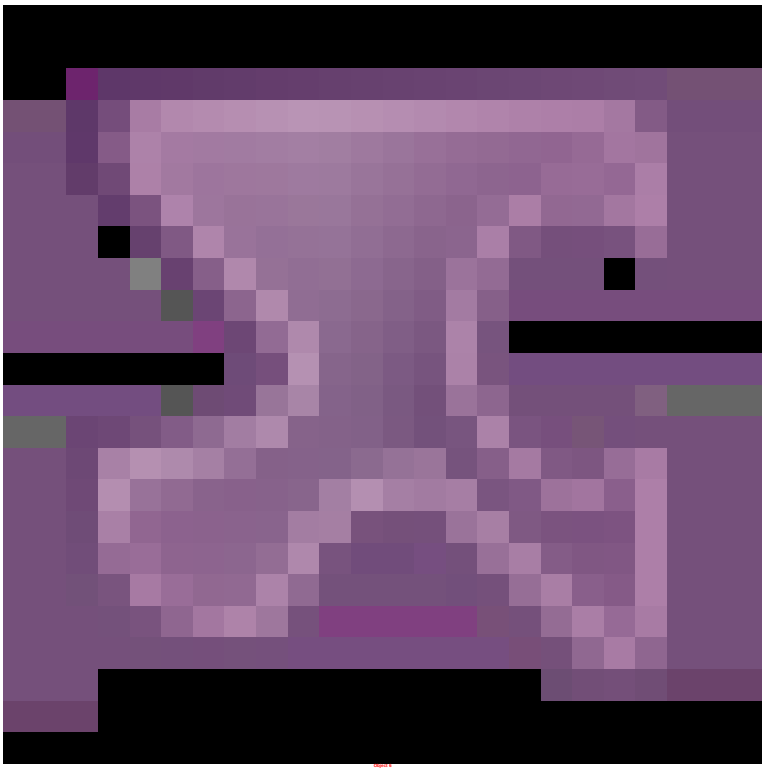
b.) A full demo of the Pokedex + real-time deep learning model in action can be found below:



c.) Predicting Earthquakes

GitHub Repository (TensorFlow) : **Access Code Here**

d.) Deep Learning to play Flappy Bird



GitHub Repository (TensorFlow) : **Access Code Here**

GitHub Repository (Keras) : **Access Code Here**