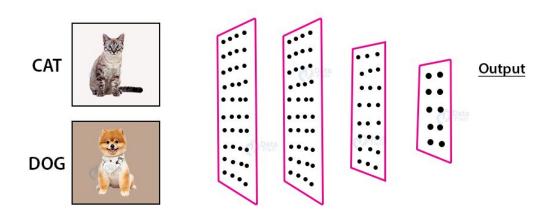
Deep Learning Project Ideas



1. Predict Next Sequence

The very basic project that you can build is to predict the next digit in a sequence. Create a sequence like a list of odd numbers and then build a model and train it to predict the next digit in the sequence. A simple neural network with 2 layers would be sufficient to build the model.

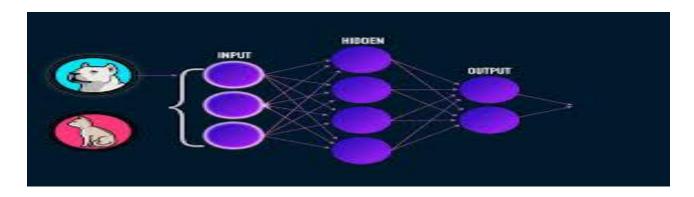
2. Cats vs Dogs



Deep Learning Project ideas



3. Build your Own Neural Net from Scratch



4. Image Classification with CIFAR-10 Dataset



Deep Learning Project ideas

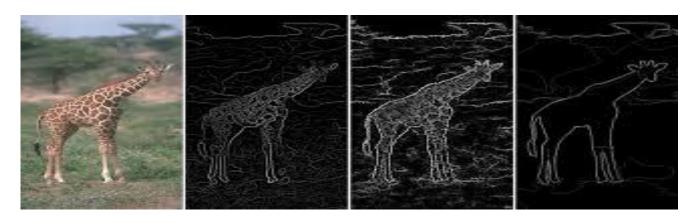


- 5. Human Face Detection
- 6. Dog's Breed Identification
- 7. Gender and Age Detection
- 8. Driver Drowsiness Detection
- 9. Language Translator

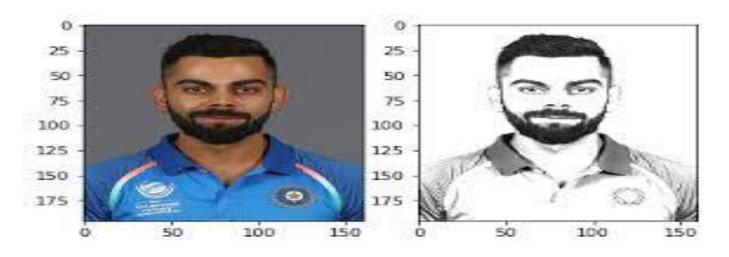
Computer Vision Project ideas



1. Edge Detection



2. Photo Sketching

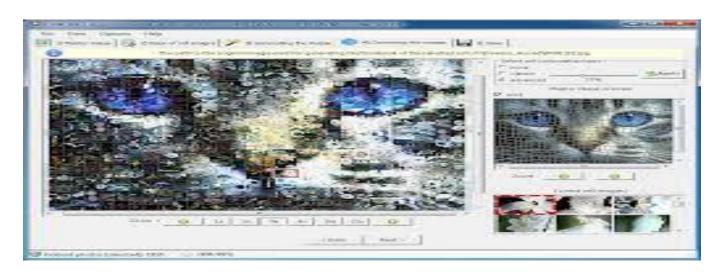


Computer Vision Project ideas

3. Detecting Contours



4. Collage Mosaic Generator

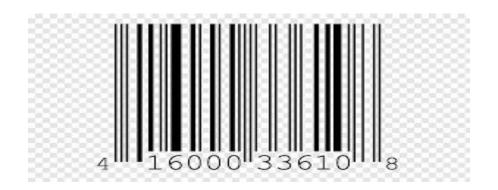




Computer Vision Project ideas

ITERNSHIPSTUDIO

5. Barcode and QR Code Scanner



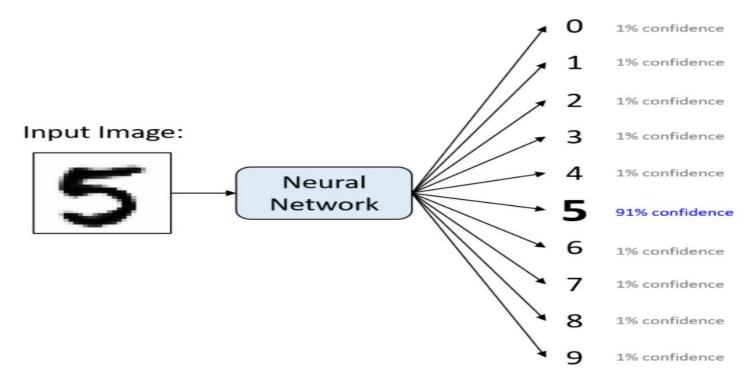
6. Face Detection







Let's build a convolutional neural network (CNN) classifier to classify images of handwritten digits in the MNIST dataset with a twist where we test our classifier on high-resolution hand-written digits from outside the dataset.



Making Predictions



Input:



Neural Network Output:

0: 100%

1: 0%

2: 0%

3: 0%

4: 0%

5: 0%

6: 0%

7: 0%

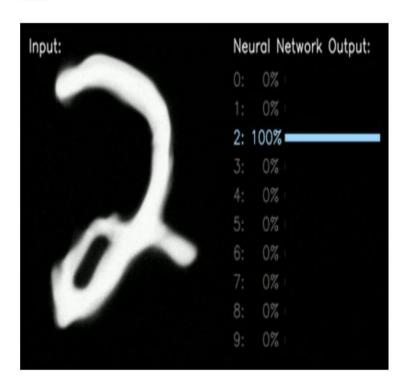
8: 0%

9: 0%

Making Predictions

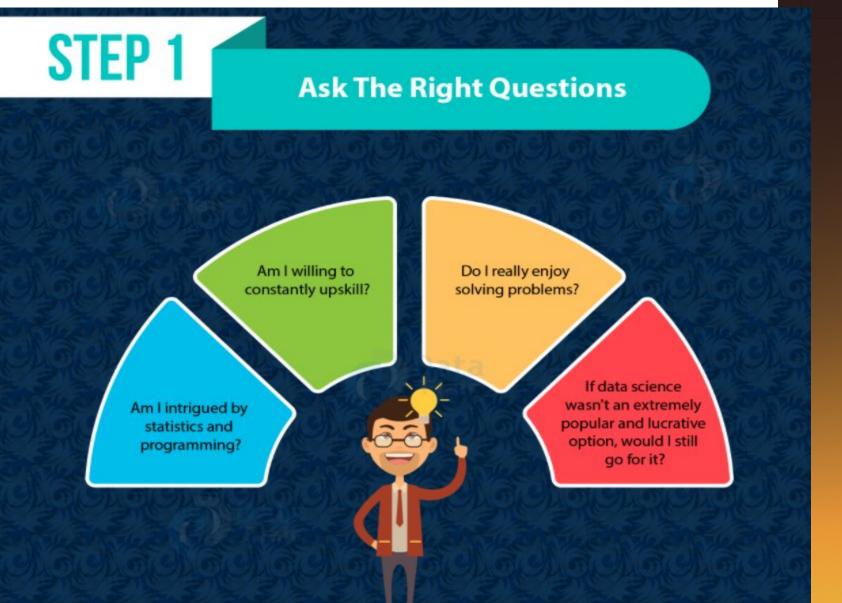


The above shows the prediction of the network by choosing the neuron with the highest output. While the output layer values add 1 to one, these do not reflect well-calibrated measures of "uncertainty". Often, the network is overly confident about the top choice that does not reflect a learned measure of probability. If everything ran correctly you should get an animation like this:



How to Become a Data Scientist





Fulfil Data Science Prerequisites



Technical Skills

Mathematics and Statistics, Computer Science, and Engineering

Languages like Python and Scala SQL and NoSQL databases

Machine Learning techniques and algorithms

Experience with Big Data and its tools Analytical tools like SAS and/or R

Non-technical Skills

Exceptional curiosity

Business acumen and domain knowledge Excellent communication skills

88

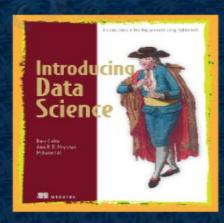
A good Data Scientist

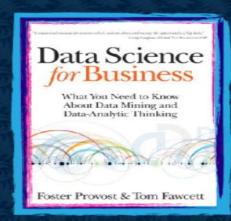
- Has experience with data visualization tools like Tableau, QlikView, and D3.js
- Is proficient in using Big Data tools like Hadoop and Spark
- Portrays dexterity in languages like Python and Scala
- Is experienced in common stats tools like R, NumPy, and MATLAB
- Has expertise in SQL and NoSQL databases like MongoDB and Cassandra

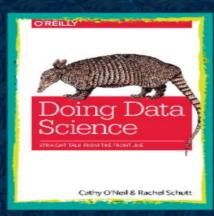
STEP 3

Read the Best Books for Data Science









STEP 4

Go for Data Science Certifications

Principal
Data Scientist - DASCA

SAS Certified Data Scientist

Cloudera Certified Professional (CCP) Data Science Certificate

IBM Data Science Professional Certificate EMC Proven Professional Data Scientist Associate (EMCDSA)

Microsoft Professional Program Certificate in Data Science



Apply for Jobs



Responsibilities of a Data Scientist

Perform exploratory data analysis

Process, cleanse, and verify the integrity of data

Identify trends in data and make predictions

Generate insights using Machine Learning techniques

Applications of Data Science

Recommendation engines

Automating risk management

Real-time & Predictive analytics

Personalized marketing

Clickstream analysis

Customer behavior analytics