

# SAGAR PRADIPKUMAR JAIN

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## Education

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- Artificial Intelligence Nanodegree (Artificial Intelligence) Aug 2017 - Dec 2017  
*Udacity*
- Master of Technology (Mechatronics and Robotics) June 2014 - May 2016  
*College of Engineering, Pune*
- Bachelor of Technology (Computer Science and Engineering) June 2009 – May 2013  
*Government Engineering College, Aurangabad*

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## Skills

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- **Proficient:** Python, Keras, Scikit\_Learn(sklearn), C++, MATLAB
- **Familiar:** Java, OpenCV, Amazon AWS, Tensorflow, Git, Team Foundation Server

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## Projects

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*Facial keypoint Detector* - <https://github.com/sagarjain2030/AIND-CV-FacialKeypoints> December 2017

- Built an end-to-end facial key point recognition system using Keras and OpenCV.
- Facial key points include points around the eyes, nose, and mouth on any face and are used in many applications, from facial tracking to emotion recognition.
- The completed project takes in any image containing faces and identifies the location of each face and their facial key points.

*Stock Price Predictor* - <https://github.com/sagarjain2030/aind2-rnn> November 2017

- Developed Times series prediction system using Long Short-Term Memory (LSTM), advancement of recurrent neural network (RNN) to predict next stock price in sequence from previous known stock price.
- Achieved training accuracy 1.600 while testing accuracy 1.398 for Apple stock prices provided from datamarket.com website.
- Currently implementing for real time Gold price Data in Indian market.

*Dog Breed Detector* - <https://github.com/sagarjain2030/dog-project> November 2017

- Built a system that can recognize dog breed from dog image provided. Also if human face is available in image, it can give dog breed which matches human face.
- Extracted pattern for dog breed using Convolutional Neural Network (CNN).
- Transferred learning of VGG16 and VGG 19 algorithms for training neural network.
- Trained model in Amazon AWS using help of OpenCV and Keras.1
- Achieved Accuracy of 71.89% using VGG19.

*Neuro Fuzzy Based Robot Navigation Algorithm* April 2016

- Used combination of fuzzy logic and neural network for robot navigation.
- Calculated amount of acceleration required by wheels of Robots with inputs as distances from obstacle with the help of neural network.
- Modified weights of neural network with rule based on fuzzy logic system.

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## Work Experience

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*Software Engineer - Renishaw Metrology Systems Ltd., Pune* July 2016 - Present  
*Geometric Dimensionality and Tolerance Detection*

- Created POC for Detection of GD&T symbols from CAD design using CNN for Company.
- Able to successfully detect 8 different GD & T symbols along with their data from any CAD design once marked with area of interest.
- Currently in phase of combining with flagship product of company.