

Education

- Master of Science, Clemson University, Computer Engineering. Aug 2018 - May 2020
 - First reported research on a deep learning model for simultaneously detecting & classifying smartwatch-sensor data.
 - Average accuracy per meal of human activity recognition (HAR) - eating close to 80% for all 264 participants.
- Master of Science, Delft University of Technology, Electrical Engineering. Sep 2014 - Jan 2017
 - Conducted research on 3D reconstruction of MRI images from one modality to another using machine learning.
 - This is aimed at improving the consistency of algorithms such as image segmentation in computer-aided diagnosis.
- Bachelor of Engineering, University of Pune, Electronics & Telecommunication. Aug 2008 - May 2012
 - Implemented a neural network algorithm for classifying script of handwritten text for faster sorting of postal envelopes.

Experience <https://www.linkedin.com/in/yy11109/>

- Clemson University, Graduate Grading Assistant and Graduate Teaching Assistant. Aug 2018 - May 2020
 - Graded the courses Communication Systems, Signals & Systems and Analysis of Tracking Systems.
 - Oversaw the practical curriculum for the course Logic & Computing Devices.
- Clemson University, Department of Computer Science, Summer Employee. May 2019 – Aug 2019
 - Conducted research on generative adversarial neural networks (GAN) for synthetically staining microscopy images.
 - Achieved mean similarity of 0.9 with test images at 256 x 256 resolution and 0.78 at 2048 x 2048 full resolution.
- Maharashtra Institute Of Technology, Co-Researcher. Feb 2018 - Jul 2018
 - Conducted research on deep learning networks for predicting a score based on the aesthetic quality of images.
- Climate Connect Pvt. Ltd., Data Scientist. Aug 2017 - Jan 2018
 - Implemented machine learning models for forecasting trends in renewable energy data sets and grid-price prediction.
 - Improved energy-price forecasting accuracy of the day-ahead model by 36% for a period of four months.
- Cognizant Technology Solutions Pvt. Ltd., Engineer Trainee. Dec 2012 - Oct 2013
 - Monitored job execution on mainframe servers, and reported failure of critical jobs to on-site development teams.

Projects

- Clemson University, Deep Learning. Jan 2019 - May 2019
 - Studied advancements and state-of-the-art approaches in deep learning such as CNN, LSTM, VAE and GAN.
 - Implemented an end-to-end ResNet model for classifying bullying images based on the activity contained in them.
- Clemson University, Analysis of Tracking Systems. Aug 2018 - Dec 2018
 - Implemented regression and state-space techniques including Kalman filter, extended Kalman filter, particle filter and hidden Markov models for filtering, signal denoising and object tracking on multiple data sets.
- Delft University of Technology, Machine Learning & Kaggle In-Class Competition. Mar 2016 - Aug 2016
 - This course covered advanced topics such as loss regularization, gradient descent and multiple instance learning.
 - Designed a model pipeline for predicting if a person's annual income would exceed 40,000 Euros with 83.4% accuracy.

Technical & software development skills <https://github.com/Yashgh7076>

- **Programming:** C (intermediate), Python & MATLAB (advanced). **OS:** Windows & Linux. **Tools:** MSYS2 & Git.
- **Libraries & APIs:** Keras, matplotlib, numpy, OpenCV, PyMySQL, PyTorch, scikit-learn, TensorFlow & Win32.
- **Volunteer Work:** Clemson University, Reviewer for:
 - IEEE - EMBS 16th International Conference on Wearable and Implantable Body Sensor Networks 2019.
 - 25th International Conference on Pattern Recognition (ICPR) 2020.