

Education

- Master of Science: Computer Engineering, Clemson University - USA. Aug 2018 - May 2020
- Master of Science: Electrical Engineering, Delft University of Technology (TU Delft) - NL. Sep 2014 - Jan 2017
- Bachelor of Engineering: Electronics & Telecommunication, University of Pune - IN. Aug 2008 - May 2012

Projects: <https://github.com/Yashgh7076>

- Thesis: Segmentation & recognition of eating gestures from wrist motion using deep learning. Oct 2019 - Apr 2020
 - Developed a novel deep learning model for segmenting periods of eating activity from inertial sensor recordings.
 - It correctly detected 77.7% of all gestures on average per meal from a data set of 488 meals eaten by 264 people.
 - Accepted as a paper at the **2020 IEEE International Conference on Big Data**.
- Analysis of Tracking Systems, Clemson University. Aug 2018 - Dec 2018
 - Studied modeling techniques for different types of sensor data corrupted by Gaussian & non-Gaussian noise.
 - Developed algorithms for applications such as indoor person tracking using Kalman filter, magnetic field strength estimation using particle filter and DNA sequence identification using hidden Markov Models (HMM).
 - Improved the accuracy for tracking calorie intake in 83 people by 1.95% through the inverse-curve model.
- Machine Learning, Delft University of Technology. Mar 2016 - Aug 2016
 - Studied trending research topics in loss-regularization, multiple instance learning & semi-supervised learning.
 - Implemented a model for predicting if annual income would exceed 40,000 Euros based on incomplete census data.
 - It achieved 83.4% test-set accuracy in the Kaggle competition **Final Assignment IN4320**.

Experience: <https://www.linkedin.com/in/yyl1109/>

- Graduate Grading & Teaching Assistant, Clemson University. Aug 2018 - May 2020
 - Taught the laboratory coursework for the subject Logic & Computing Devices for engineering students.
 - Graded coursework for the subjects Communication Systems, Signals & Systems and Analysis of Tracking Systems.
- Graduate Research Student, Clemson University - Department of Computer Science. May 2019 - Aug 2019
 - Conducted research on synthetically staining phase-contrast microscopy images using a deep learning model.
 - Developed a cyclic-conditional generative adversarial network (GAN) in PyTorch for generating synthetic images.
 - It achieved 0.9 mean similarity (Pearson correlation coefficient) with 300 target images at 256 x 256 resolution.
- Co-Researcher: Deep Learning, Maharashtra Institute of Technology. Feb 2018 - Jul 2018
 - Researched strategies for predicting an aesthetic score for advertisement images and videos using deep learning.
 - Taught the fundamentals of deep learning, including design of model workflows in Python to Engineering students.
- Data Scientist, Climate Connect Pvt. Ltd. Aug 2017 - Jan 2018
 - Developed machine learning models for forecasting trends in renewable energy and energy price markets.
 - Collaborated with software developers and management at building a strong and viable company strategy.
 - Improved the forecasting accuracy of the Indian Energy Exchange (IEX) model by 36% for a period of four months
- Engineer Trainee, Cognizant Technology Solutions Pvt. Ltd. Dec 2012 - Oct 2013
 - Monitored client Mainframe servers, and reported failure of critical jobs to the on-site development team.
 - Documented daily patterns of job failure, and helped to modify the scheduling sequence to reduce the failure rate.

Programming skills

- **Languages:** C, Python, MATLAB (advanced), C++ (basic). **OS:** Windows, Linux (basic).
- **Tools:** TensorFlow, Keras, scikit-learn, OpenCV (advanced), PyMySQL, Git, PyTorch, Jupyter Notebooks (basic).