

Education

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

Programming skills

- **Languages:** Python, C, MATLAB (advanced), C++ (basic) **OS:** Windows, Linux/UNIX (basic)
- **Tools:** TensorFlow, Keras, scikit-learn, OpenCV (advanced) SQL, Git, Msys2, PyTorch, HTML, CSS (basic)
- **LinkedIn:** <https://www.linkedin.com/in/yy11109/> **GitHub:** <https://github.com/Yashgh7076>

Projects

- Segmentation & recognition of eating gestures from wrist motion using deep learning. Nov 2019 - Apr 2020
 - Developed a convolutional neural network (CNN) for tracking eating activities (gestures) from wrist-motion data.
 - This is the first deep learning model capable of performing semantic segmentation on IMU time-series data.
 - It correctly identified 77% of all gestures on average per meal from a data set of 488 meals eaten by 264 people.
 - Submitted for review to the ‘2020 IEEE International Conference on Big Data’.
 - **Project page:** <https://yashgh7076.github.io/projects.html>
- Analysis of Tracking Systems, Clemson University. Aug 2018 - Dec 2018
 - Studied and developed algorithms for analysis, signal denoising and object tracking on multiple data sets.
 - Implemented: Kalman filter - UWB based indoor person tracking, extended Kalman filter - sinusoidal path tracing, particle filter - magnetic field strength detection and hidden Markov models (HMM) - DNA sequence detection.
- Machine Learning & Kaggle In-Class Competition, Delft University of Technology. Mar 2016 - Aug 2016
 - Undertook research study on advanced topics like loss regularization, ensemble and multiple instance learning.
 - Implemented a classifier that predicted if a person’s annual income would exceed 40,000 Euros with 83.4% accuracy.

Experience

- Graduate Student Software Developer, Clemson University. May 2019 - Aug 2019
 - Implemented a novel generative adversarial neural network (GAN) for synthetically staining microscopy images that achieved 0.9 mean similarity (Pearson correlation coefficient) among 300 test images at 256 x 256 resolution.
- Graduate Teaching Assistant & Graduate Grading Assistant, Clemson University. Aug 2018 - May 2020
 - Conducted the laboratory experiments and practical exams for the course Logic & Computing Devices.
 - Graded the courses Communication Systems, Signals & Systems and Analysis of Tracking Systems.
- Co-Researcher: Deep learning, Maharashtra Institute of Technology (M.I.T. - Pune). Feb 2018 - Jul 2018
 - Undertook research on building deep learning models for predicting an aesthetic score for images and videos.
 - Conducted practical hands-on coding sessions for the undergraduate, graduate students and the faculty of the Department of Computer Engineering at M.I.T - Pune.
- Data Scientist, Climate Connect Pvt. Ltd. Aug 2017 - Jan 2018
 - Deployed machine learning models for forecasting trends in renewable energy generation and energy-market prices.
 - Improved the prediction accuracy for the Indian Energy Exchange by 36% (MAE) for a period of 4 months.
- Engineer Trainee, Cognizant Technology Solutions Pvt. Ltd. Dec 2012 - Oct 2013
 - Provided support to the on-site team by monitoring jobs on client servers and reporting failure of critical jobs.