

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)

Projects

- Thesis: Segmentation & recognition of eating gestures from wrist motion using deep learning. Nov 2019 - Apr 2020
 - Implemented a novel neural network for detecting eating gestures from a complete recording of wrist motion data.
 - This is the first model capable of simultaneously localizing and classifying segments into unique eating gestures.
 - 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’.
- Analysis of Tracking Systems, Clemson University. Aug 2018 - Dec 2018
 - Studied model fitting techniques for regression 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.
- Thesis: Intensity normalization in 3D MRI images using joint dictionary learning. Aug 2016 - Jan 2017
 - Conducted research on machine learning for normalizing MRI images across multiple modalities and scanners.
 - This was aimed at improving the consistency of computer vision algorithms used in subsequent analysis.
- 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 Teaching Assistant, Clemson University. Jan 2019 - May 2020
 - Conducted the laboratory experiments and practical exams for the course Logic & Computing Devices.
- Graduate Grading Assistant, Clemson University. Aug 2018 - May 2020
 - Graded the courses Communication Systems, Signals & Systems and Analysis of Tracking Systems.
- Graduate Student Summer Employee (Software development), Clemson University. May 2019 - Aug 2019
 - Implemented a novel Cyclic-conditional GAN for synthetically staining phase-contrast microscopy images.
 - It achieved 0.9 mean similarity (Pearson correlation coefficient) with 300 test images at 256 x 256 resolution.
- 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 (IBM z/OS & Mainframes), 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.