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Yadnyesh Y. Luktuke

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Education

- Master of Science, Clemson University, Computer Engineering. Aug 2018 - May 2020
  - Research focus: Deep learning, human activity recognition (HAR), IMU sensors & system programming.
  - Designed and implemented a deep learning model for segmenting eating gestures from wrist motion recordings.
  - The model correctly identified 77.7% of all gestures on average per meal from 488 meals eaten by 264 participants.
- Master of Science, Delft University of Technology, Electrical Engineering. Sep 2014 - Jan 2017
  - Research focus: Computer aided diagnosis, machine learning, pattern recognition, signal & image processing.
  - Conducted research on machine learning techniques for 3D MRI image reconstruction in multiple modalities and intensity-spaces for improving the consistency of computer vision algorithms used in the diagnosis of MRI images.
- Bachelor of Engineering, University of Pune, Electronics & Telecommunication. Aug 2008 - May 2012

Experience `https://www.linkedin.com/in/yyl1109/`

- Clemson University, Graduate Grading Assistant and Graduate Teaching Assistant. Aug 2018 - May 2020

  Graded the courses Communication Systems, Signals & Systems (undergraduate) and Analysis of Tracking Systems (graduate). Also oversaw the laboratory work and final practical exam for the course Logic & Computing Devices.
- Clemson University, Department of Computer Science, Graduate Student Summer Employee. May 2019 – Aug 2019

  Conducted research on synthetically staining microscopy images using generative adversarial neural networks (GAN). The model achieved mean similarity (Pearson correlation coefficient) of 0.9 with 300 test images at 256 x 256 resolution.
- Climate Connect Pvt. Ltd., Data Scientist. Aug 2017 - Jan 2018

  Implemented predictive modeling solutions for forecasting trends in renewable energy data sets. Improved the accuracy of day-ahead energy-grid price prediction in the Indian Energy Exchange (IEX) by 36% for a period of four months.
- Cognizant Technology Solutions Pvt. Ltd., Engineer Trainee. Dec 2012 - Oct 2013
  Trained in IBM z/OS and Mainframe technology. Monitored job execution on mainframe servers, and reported failure of critical jobs to on-site development teams.

Projects

- Clemson University, Analysis of Tracking Systems. Aug 2018 - Dec 2018
  Studied the theory and algorithm design for state-space models used in signal filtering and object tracking. Models implemented include Kalman filter, extended Kalman filter, particle filter and hidden Markov models.
- Delft University of Technology, Machine Learning & Kaggle In-Class Competition. Mar 2016 - Aug 2016
  Undertook research study on advanced topics like loss regularization, semi-supervised and multiple instance learning. Implemented the pipeline for predicting if a person's annual income would exceed 40,000 Euros with 83.4% accuracy.
- Delft University of Technology, Digital Audio & Speech Processing. May 2015 - Jul 2015
  Studied characteristics and limitations of various models for speech & audio coding and noisy channel estimation. Implemented a state-of-the-art algorithm for non-stationary noise estimation and speech enhancement in hearing aids.

Technical skills `https://github.com/Yashgh7076`

- **Programming:** Python/ MATLAB (advanced), C (proficient). **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 16^{th} International Conference on Wearable and Implantable Body Sensor Networks 2019.
  - 25^{th} International Conference on Pattern Recognition (ICPR) 2020.