

Experience

Graduate Researcher: Master's Thesis, Clemson University.

Feb 2019 - Apr 2020

Python and C programming, healthcare data mining, inertial measurement unit (IMU) sensors, activity recognition.

- Developed a deep learning model for detecting eating gestures in smartwatch data recorded from 271 participants.
- Pioneered semantic segmentation of time-series data by transforming each segment of recorded data to resemble an image.
- Achieved 80% accuracy for all intake gestures in a data set containing 488 different meals and 51,614 total gestures.
- Accepted at the [IEEE Big Data 2020 International Conference](#) which had an acceptance rate of 16.4%.

Co - Researcher, Maharashtra Institute of Technology.

Feb 2018 - Jul 2018

Python programming, Jupyter notebooks, deep learning research, TensorFlow, PyTorch, Keras.

- Created instructional material for training 6 engineering students through hands-on coding sessions in TensorFlow.
- Conducted research on deep learning models for predicting an aesthetic score on advertisement images and videos.

Data Scientist: Forecasting, Climate Connect Pvt. Ltd.

Aug 2017 - Jan 2018

Python and R programming, web-scraping, scikit-learn, SQL databases, cron job scheduling.

- Carried out data analysis and deployed solutions for forecasting trends in energy & energy economics data sets.
- Designed the model pipeline for 2 projects; next-day energy-price prediction and daily solar power forecasting.
- Improved the price-forecasting accuracy in the Indian Energy Exchange (IEX) by 36% for a period of four months.

Engineer Trainee, Cognizant Technology Solutions Pvt. Ltd.

Dec 2012 - Oct 2013

IBM Mainframe and z/OS, job maintenance and scheduling, server monitoring.

- Monitored client mainframe servers and reported failure of critical jobs to the on-site development team.
- Documented 3 technical issues in the job schedule and identified methods for reducing the failure rate.

Education

MS - Computer Engineering, Clemson University.

Aug 2018 - May 2020

- Graduate Coursework: Computer Vision; Deep Learning (CNN, LSTM, GAN, UNet, ResNet); Statistical Analysis.

MSc. - Electrical Engineering, Delft University of Technology.

Sep 2014 - Jan 2017

- Graduate Coursework: Machine Learning; Signal Processing (speech & audio, image); Sensors & Actuators.

B.E. - Electronics & Telecommunication Engineering, University of Pune.

Aug 2008 - May 2012

- Undergraduate Coursework: Applied Sciences; Data Structures & Algorithms; Engineering Mathematics.

Projects

Instrumentation of sensors & actuators, Clemson University.

Jan 2020 - May 2020

- Conducted literature survey of 4 different sensing technologies for automatically detecting energy intake in humans.
- Identified wrist-worn sensors as the most feasible sensing technology by observing data recorded from 83 people.
- Defended the findings through technical discussions and presentations with 12 undergraduate and graduate students.

Analysis of Tracking Systems, Clemson University.

Aug 2018 - Dec 2018

- Applied regression, state-space estimation and stochastic modeling algorithms to analyze time-series data sets.
- Implemented a model for tracking calorific intake in 83 people based on the number of 'bites' per meal.
- Other applications studied include indoor person tracking (Kalman filter), and DNA sequence decoding (HMM).

Machine Learning, Delft University of Technology.

Mar 2016 - Aug 2016

- Interpreted research papers and implemented code on different supervised and unsupervised machine learning models.
- Stood 22nd in the Kaggle competition [seen here](#) for threshold prediction in annual income with 83.4% accuracy.

Programming languages & technologies

Python; C; MATLAB; TensorFlow; OpenCV; scikit-learn; Keras (**proficient**).

C++; R; MySQL databases; Git version control; Jupyter Notebooks; PyTorch; Linux/Unix; JMP (**fundamental**).