Mayur Shende

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Mayur-Shende-2

EDUCATION

Master of Technology (M. Tech)

2021-present
Specialization: Artificial Intelligence
Institute: Defence Institute of Advanced Technology, Pune, India
Department: Department of Computer Science and Engineering
CGPA: 7.75 / 10.00
Thesis: TBD

Bachelor of Engineering (B.E.)

2017-2021
Institute: Goverment College of Engineering, Nagpur, India
Department: Department of Computer Science and Engineering
CGPA: 9.28 / 10.00
Thesis: Development of an R library for Automated Time-series Cleaning

SKILLS

Python | R | C++ | C | Shiny | Tensorflow | LaTex | HTML | CSS | Flutter | GitHub | Git

EXPERIENCE

Summer Internship - Visvesvaraya National Institute Of Technology, Nagpur

May 2019 - August 2019
Implemented PSF(Pattern Sequence Based Forecasting) Forecasting Algorithm, for univariate time-series forecasting, in Python (https://pypi.org/project/PSF-Py/). Also worked with tools for data visualization.
Python | Matplotlib | Forecasting | ARIMA | Prophet

Google Summer of Code (2021)

May 2021 - August 2021
Project link: https://summerofcode.withgoogle.com/archive/2021/projects/5676749848838144
The goal of this project was to develop a new R package, named *cleanTS* (https://cran.r-project.org/web/packages/cleanTS/index.html). The package automates the proces of cleaning uniariate time-series data and provides new ways to visualize data in different resolutions.
Data Cleaning | Univariate Time-Series | R | Shiny | Animated Visualizations

Winter Internship - Visvesvaraya National Institute Of Technology, Nagpur

April 2020 - August 2020
Worked on a implementation of Jaya, an optimization algorithm. An R package for the same was also published (https://cran.rstudio.com/web/packages/Jaya/index.html). Also, worked in the fields of data visualization, forecasting, and image processing and various tools for data manipulation in R.
R | GA | Data Visualization | Optimization Algorithms

Google Summer of Code (2022)

May 2022 - November 2022

Project link: https://summerofcode.withgoogle.com/programs/2022/projects/0WjqfO7k

The goal of the project is to develop a new R package, modifying the imputeTestbench package (data imputation) for Genomics applications with better computational capabilities.

Data Imputation | Genomics | R | Shiny

PUBLICATIONS

- **Mayur Kishor Shende**, Andrés E. Feijóo-Lorenzo, Neeraj Dhanraj Bokde. **cleanTS: Automated (AutoML) tool to clean univariate time series at microscales**. *Elsevier.* ***Neurocomputing*** Volume 500, Pages 155-176 (2022). **(IF 5.719)** (https://doi.org/10.1016/j.neucom.2022.05.057).
  Software | Data Cleaning | Time Series Analysis | Machine Leaning | AutoML

- **Shende, M.K.**; Salih, S.Q.; Bokde, N.D.; Scholz, M.; Oudah, A.Y.; Yaseen, Z.M. **Natural Time Series Parameters Forecasting: Validation of the Pattern-Sequence-Based Forecasting (PSF) Algorithm; A New Python Package.** *MDPI*. ***Applied Sciences*** 2022, 12, 6194. **(IF 2.736)** https://doi.org/10.3390/app12126194.
  Software | Time Series Analysis | Forecasting | Machine leaning

- M Sawant, **MK Shende**, AE Feijóo-Lorenzo, ND Bokde. **The State-of-the-Art Progress in Cloud Detection, Identification, and Tracking Approaches: A Systematic Review**. *Multidisciplinary Digital Publishing Institute (MDPI).* ***Energies*** Volume 14 Issue 23. (2021) **(IF 3.004)** (https://www.mdpi.com/1996-1073/14/23/8119).
  Review | Cloud Detection | Cloud Imaging | Object Detection | Image Processing

- Agenis-Nevers M., Bokde N., Yaseen Z., and **Shende M.** (2020). **An empirical estimation for time and memory algorithm complexities: Newly developed R package**. *Multimedia Tools and Application* **(IF 2.757)**. 80, 2997-3015 (https://doi.org/10.1007/s11042-020-09471-8).
  Software | Complexity | AutoML

PROJECTS

- Development of an R Package for automated time-series cleaning. (github.com/Mayur1009/cleanTS).
- Implementation of an optimization algorithm JAYA in R. (https://cran.r-project.org/package=Jaya).
- Created Python Package implementing PSF(Pattern Sequence Based Forecasting) algorithm. (https://pypi.org/project/PSF-Py).
- Contribution in data visualization in the R package *ForecastTB* (https://cran.r-project.org/package=ForecastTB).
- Created a Flutter application for detection of crops from given image.
- Project to implement an algorithm that detects clouds from satellite images. This was part of problem statement given by ISRO in Smart India Hackathon, 2019.

CERTIFICATIONS

Machine Learning
- By Stanford University on Coursera
- Logistic Regression
- Machine Learning Algorithms

Deep Learning Specialization
- By deeplearning.ai on Coursera
- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks(Ongoing)
- Sequence Models(Ongoing)

∞ Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

- By deeplearning.ai on Coursera.
- Introduction to Neural networks.
- Implementing various networks using Tensorflow.

ACTIVITIES AND INTERESTS

Team Leader, Smart India Hackathon 2019

- Qualified and selected from the college round.
- Problem Statement: Cloud Movement Prediction

Event Organizer, SYNERGY, GCOEN, 2019

- Inter College technical event "SYNERGY"
- Part of the organizing team for gaming events in Synergy, 2019.

REFEREE

Dr. NEERAJ DHANRAJ BOKDE

- Assistant Professor, Center for Quantitative Genetics and Genomics, Aarhus University, Aarhus, Denmark
- Email: neerajdhanraj@qgg.au.dk
- Website: https://www.neerajbokde.in/