

Event Report

Regression and Classification using Python

22nd – 24th May 2020

ABOUT THE EVENT

Regression and Classification using Python Workshop was a series of webinar session held on 22nd -24th May, 2020.

Event was organized by Department of Information Technology G H Patel College of Engineering & Technology in collaboration with Computer Society of IEEE GCET Student Branch. The main aim of the webinar series was to puzzle out basic knowledge of Machine Learning, topics like Data Preprocessing Introduction, Data Preprocessing Hands-on, and Introduction to Regression, Regression Algorithm Hands-On, Classification Algorithm and Classification Hands-on using Python

The seminar was attended by the Students, whom these topics are crucial.

ABOUT THE SPEAKERS

1. Prof. Yogesh Dangar

Prof. Yogesh Dangar has obtained degree of M.E. (Information Technology) from GTU Gandhinagar and he has obtained degree of B.E. from SPU, Vallabh VidhyaNagar, Anand.

Prof. Yogesh Dangar is awarded by CharutarVidya Mandal for his sincere efforts and commitment towards designing and development of official website of G H Patel College of Engineering & Technology on 10th April 2017. He is specialized in Image Processing and conducted many Workshops like Microsoft Azure- A Head Start, Windows App Development, Internet of Things and Its Applications. He published 5 Research papers in National and International journals. Currently he is the Assistant Professor in G H Patel College of Engineering & Technology with 7.5 Years of experience.



2. Prof. Vinita Shah

Prof. Vinita Shah is working as an Assistant Professor in the Department of Information Technology at GCET College. Her area of interest is Data Science, Machine Learning, Deep Learning and Computer Vision. She has published more than 20 Research papers in various National/International Conferences and Journals. She has also worked as advisory committee member in International Conference – ICRAET 2020). She has guided more than 20 projects at Under Graduate level and more than 8 Dissertations at Post Graduate level. She has also delivered more than 10 workshops / Seminars on topics like Python Introduction, Brief tour of Python libraries, Data science using python, Data Analytics, Machine Learning etc.



Day 1: Data Pre-Processing and Linear Regression

The first session was conveyed by Prof. Yogesh Dangar based on introduction to Machine Learning and made us understand which tools and technology used to write python script, next topic was Introduction to Regression models such as Linear and Non Linear used to predict real values and explain us the hands on programs on Regression. Around 65 students actively attend the webinar.

Further he explained Supervised and unsupervised learning are the machine learning paradigms which are used in solving the class of tasks by learning from the experience and performance measure. These supervised and unsupervised learning techniques are implemented in various applications such as artificial neural networks which data processing systems are containing a huge number of largely interlinked processing elements.

Finally he ended sessions after explaining hands-on program of Data Preprocessing Python code for our reference and giving students quiz to solve.

Day 2: Data Pre-Processing and Linear Regression (II)

Second day of workshop on Regression and Classification using Python was also conducted by Prof. Yogesh Dangar, he continue the session by explaining one more hands-on program , he explain how to create a simple linear regression model using numpy,matplotlib,pandas libraries. Around 65 students actively attend the webinar.

The program target a prediction value based on independent variables. It is mostly used for finding out the relationship between variables and forecasting, explain code snippet of separate matrix feature and DV, Splitting dataset in testing and training, predict the result on test data, plotting the results on graph.

Day 3: Classification using Python

The third session of Regression and Classification using Python was conducted by Prof. Vinita Shah. Topics covered by my Ma'am were Classification, Difference between Classification and Regression, Flow Steps of Implementation, Feature Scaling and Classification Algorithm Implementation.

Moving ahead she insight Problems which have a categorical answer, as in problems which have a fixed solution is defined as a Classification by giving example on Classification problems and engaging students with her witty questions, also gave an difference between Regression and Classification by using simple terminologies, she acquired students by teaching different types of algorithm used in the Classification Problems and explained each terminologies by giving program related to example.

Finally, she concluded the session by explaining hands-on problems like naïve-bayes, numpy-reshape, and numpy-concatenate programs and answering the queries of different students.

Conclusion

Regression and Classification using Python, which spanned over a period of three Days saw 50+ students aspiring to learn machine learning. The main motive of this event was to organize fruitful discussions and informative sessions for students on the topics that are of utmost relevance to them in future.

Machine learning has several very practical applications that drive the kind of real business results – such as time and money savings – that have the potential to dramatically impact the future of your organization. At Interactions in particular, we see tremendous impact occurring within the customer care industry, whereby machine learning is allowing people to get things done more quickly and efficiently.

Through Virtual Assistant solutions, machine learning automates tasks that would otherwise need to be performed by a live agent – such as changing a password or

checking an account balance. This frees up valuable agent time that can be used to focus on the kind of customer care that humans perform best: high touch, complicated decision-making that is not as easily handled by a machine.

With Regression and Classification using Python Workshop, everyone who was a part of it left with a sense of satisfaction, loads of knowledge and clarity about the matter at hand.
