

# Pythonic Dataquest

Infinix, the AI and ML club organized their first event of the year, on Thursday, 17<sup>th</sup> of August at the Computer Lab-210. This event was supposed to be the students' introduction to the world of artificial intelligence and data science. Hence, the speakers for the event were college faculty members Dr. Toral Shah and Dr. Yogesh Jadhav, both veterans of these fields. On the day of the event, the venue was jam-packed with eager students, ready to learn, probably making the organizing team grateful that they made prior registration necessary.

The event commenced with a short briefing about the program schedule by the head of the club, Atharva Patil and the co-heads of the club, Rishika Singh and Atharv Bheda. This marked the beginning of the first session by Dr. Toral Shah, on data preprocessing in Python using Pandas and Numpy. Ma'am introduced the students to the basics of data science. This included segregation of data on the basis of its type i.e. heterogenous, homogeneous. Prior to this, she briefed the students on some tools that would be essential in the workflow, namely NumPy and Pandas.

The first topic she introduced was NumPy, a Python library for which provides functions for various mathematical and statistical functions, adding support for large, multi-dimensional arrays and matrices. Next came a discussion on Pandas, another Python Library, mainly used for data manipulation and analysis. The enthusiasm and approach of Dr. Toral Ma'am and her knowledge about the subject left the students spellbound and totally engrossed in the session. Ma'am also implemented an interactive and hands-on approach whereby the students implemented code that was taught to them and got their doubts cleared on the spot. Dr. Toral Ma'am also guided the students about an in depth approach to learning Pandas and NumPy as they are important prerequisites to work on artificial intelligence and machine learning algorithms.

The next session by Dr. Yogesh Jadhav introduced the students to artificial intelligence, using Python as the environment, as it houses various libraries supporting the same. He enlightened the students about TensorFlow and PyTorch, open source frameworks by Google and Facebook respectively, which are also the two most popular and frequently used machine learning and deep learning frameworks. An open source framework is a computer software that is developed as a public, open program, and made freely available to users. For the purpose of this session, sir focussed on working to create basic neural networks in TensorFlow, and prefaced that by explaining the concept of tensors to the students. Within no time, the students were thinking on their own feet, designing neural networks and getting desired outputs from their code. Similar to Toral ma'am, sir followed a hands-on demonstrative approach, which did wonders for the students.

A lot of these students operated Python for the first time barely a few days ago, at the Python session organized by the Student Council, and within the span of two hours, they were working on extremely advanced software, making use of various algorithms and functions learned during the session.

This was followed by a brief quiz session as a recap of the topics discussed during the event. The entire audience was divided into six teams and participated in a multimedia quiz organized by the core members of the Committee. It proved to be the highlight of the day, as "Team Abhan" were declared winners.

It would be a severe understatement to say that this event was a smashing success by the newly rechristened Infinix AI and ML Club.

Written and reported by Neil Advani