BZAN 6355 Advance Programming for Big Data Analytics
SPRING 2019

BZAN 6355 Course Description

Adopting the most promising open-source programming language Python, this course will solidify the fundamental programming concepts and introduce advanced programming techniques of interactive visualization and predictive analytics. There will be plenty of opportunities for students to practice cutting-edge Python programming skills for diagnosing and manipulating raw data. This heavily hands-on course will emphasize confidence with the Python language grammar, programming flow, and mastery of a wide range of useful data operations. Beyond, students will learn to understand, apply, interpret the results of, and criticize the capabilities of several widely used predictive models on real-life datasets. A core component of the course is building problem-solving analytics projects involving such skills as data management, data transformation, interactive visualization, predictive modeling, and critical thinking.

More details about topics covered/required in BZAN 6355

Those basic concepts covered in BZAN 6351 but in the Python environment; in addition, understanding other data types such as list, tuple, and dictionary (JSON), data frame in Pandas, matrix in Numpy, interactive visualization in Plotly, programming in the IPython Jupyter environment, project and file management in Eclipse, online data collection and crawling, advanced management/manipulation of datasets (e.g., append, merge, and join), and implementing classic data mining models in Python (e.g., k-Nearest-Neighbor, Decision Tree, Logistic and Multiple Regression, etc.,).

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