

SUMMER 2019

Computer Science

Extended Campus / Distance Education

CS 391 – 953

ONLINE COURSE

Instructor – Dr. Bardh Hoxha

Applied Machine Learning with Python

Machine learning (ML) may be utilized to develop systems that learn and adapt from their experience and optimize over time. Lately, we have seen a large number of applications of ML technologies: image recognition, natural language processing (ex: Siri, Alexa), medical diagnosis, autonomous driving etc. This is an introductory course in ML with emphasis on applying ML techniques with python. Topics include supervised learning, unsupervised learning, reinforcement learning and adaptive control. The course will teach students to utilize python packages such as NumPY, SciPy, matplotlib, and scikit-learn to apply ML methods to solve real-world problems. Case studies from the automotive domain and particularly autonomous driving will be presented.

Prerequisite: Basic Java or Python Programming (possibly CS 220).

Textbook: No textbook required.