Boston University - Fall 2023

EC 523/CS523 A1: Deep Learning

Description

This course is an introduction to deep learning, a branch of machine learning concerned with the development and application of modern neural networks. Deep learning algorithms extract layered high-level representations of data in a way that maximizes performance on a given task. For example, when asked to recognize faces, a deep neural network may learn to represent image pixels first with edges, followed by larger shapes, then parts of the face like eyes and ears, and, finally, individual face identities. Deep learning is behind many recent advances in AI, including Siri's and Alexa's speech recognition, Facebook's tag suggestions and self-driving cars. We will cover a range of topics from basic neural networks, convolutional and recurrent network structures, deep unsupervised and reinforcement learning, and applications to problem domains like speech recognition and computer vision. Prerequisites: a strong mathematical background in calculus, linear algebra, and probability & statistics, as well as prior coursework in machine learning and programming experience in Python.

General Information

Lecture

M/W 2:30-4:15pm, PHO 203

Instructor

Kayhan Batmanghelich
office hours: Monday 10am-11am, outside PHO 421

Teaching Assistant

TA:
Li Sun (lisun@bu.edu),
office hours: Thursday 2pm-3pm,
locaiton: PHO 4th floor

Graders:
Jordan Koseski
Priyank Negi

How to Contact Us

Please use Piazza for all communication; if your question is only directed to the instructors, please make a post to "Individual Student(s) / Instructor(s)" and select "Instructors".

Announcements

Homework 1 released
9/11/2023, 6:23:21 PM

Dear students,

Greetings! I would like to let you know that homework 1 has been released.