CSE 4502/5717 Big Data Analytics
Spring 2026

https://raj.cse.uconn.edu/2026-spring/

Instructor: Sanguthevar Rajasekaran (RAJ, equivalently)

Office Hours: T Th 9:30 AM to 11:00 AM; ITEB 252
(https://uconn-cmr.webex.com/meet/sar02010);
Sanguthevar.Rajasekaran@uconn.edu

Grading Policy:
CSE 4502: Three homeworks worth a total of 10 points; Three exams worth a total of 90 points.
CSE 5717: Three homeworks worth a total of 10 points; Four exams worth a total of 90 points.

We live in an era of big data. Every domain of science and engineering calls for the processing of voluminous datasets. This course provides a review of fundamental algorithms and techniques employed in big data analytics.

Topics to be covered include:

- Introduction to Algorithms (sequential, parallel and randomized)
- Out-of-core Algorithms
- Data Structures
- Rules Mining
- Clustering Algorithms
- Text Mining
- Data Reduction Techniques
- Quantum Computing – an introduction
- Applications (string algorithms, record linkage, motif search, *k*-locus association, *k*-mer counting, error correction, sequence assembly, etc.)