

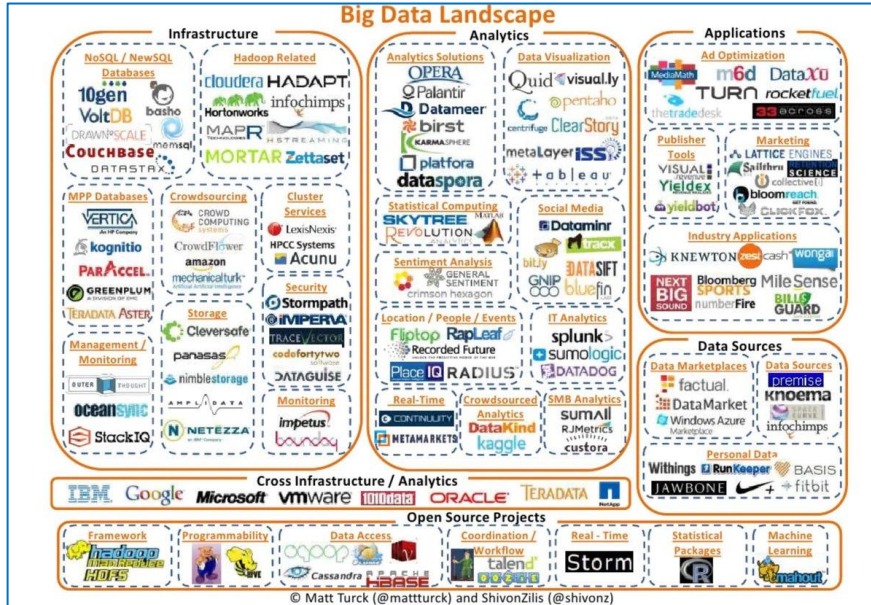


**OPUS**  
College of Engineering

**MARQUETTE UNIVERSITY**  
Electrical and Computer Engineering

EECE 6932 – 102 Fall 2024

Advanced Topics in Electrical and Computer Engineering:  
**Big Data Mining & Analytics**  
Olin Engineering 116



## COURSE FORMAT

- Learn Big Data Analytics and Mining with real world case studies
- Hands-on Coding Lab and Projects with Real World Data
- Active Discussion and Q&A Forums in D2L led by Instructor

## Topics covered

- Relational databases design and implementation
- NOSQL Databases
- Hadoop, Hive, Pig, and Map-Reduce programming

- In this course, we will learn the process of database design, entity-relationship mapping, and database programming. Case studies that shows big data discovery, types of data with focus on unstructured and heterogeneous data, data cleaning, schema design, and integration. Hadoop framework with Hive and Pig. Map-reduce programming.
- Identify challenges associated with heterogeneous and unstructured data
- In the course project, students will research, develop methodology, and implement data integration solutions for real world applications (e.g., healthcare, earth science).

### Course highlights

- Discover and learn challenges associated with big data!
- Can learn database design and implementation!
- Devolve project to solve real world problems!

**Instructor:**  
Dr. Priya Deshpande,  
Electrical and Computer Engineering