

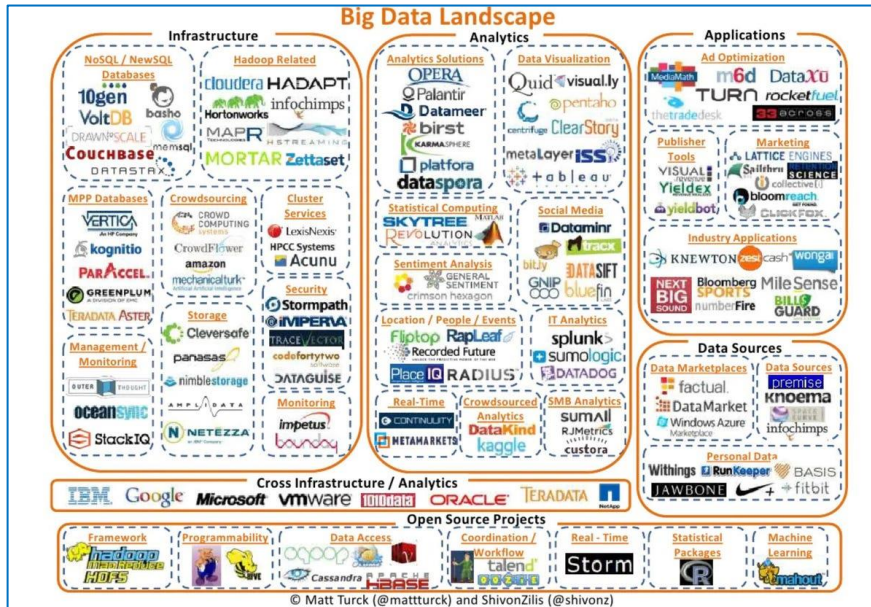


OPUS
College of Engineering

MARQUETTE UNIVERSITY

Electrical and Computer Engineering

COEN 4690/EECE 5690 Spring 2025
Developments in Computer Software:
Database Design and Programming



COURSE FORMAT

- Learn Database design 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

PROJECT EXAMPLES

- Data cleaning approaches for heterogeneous data
- Identifying uncertainty factors in unstructured data and discover methodology to address uncertainty
- Machine learning or computer vision techniques to integrate unstructured data

Or Propose Your Own Topic

- In this course, we will learn the process of **database design, Entity-Relationship mapping, and Database programming.** Case studies that show big data discovery, types of data with focus on unstructured and heterogeneous data, data cleaning, schema design, and integration.
- 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).
- Prerequisite: Programming knowledge

Course highlights

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

Instructor:
Dr. Priya Deshpande,
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