CS 145
Data Mining

Instructor: Wei Wang
Fall 2015
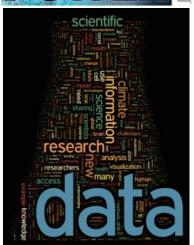
Big Data are Everywhere

So are the Challenges

Welcome!

- **Instructor: Wei Wang**
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  - ➤ **Office hours: Tuesday 2-5pm @ 3551P Boelter Hall**

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PTE

- **Cannot issue now**
- **Depends on class size of the first week**
- **Please write down your name, UID, email address in the signup sheet**

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Overview

- **Homepage: on UCLA CCLE**
  - ➤ **Announcements**
  - ➤ **Assignments**
  - ➤ **Discussion board: will be used for posting any course related Q/As**
- **Lecture Time: MW 12noon-1:50PM**
- **Discussion Sessions: Friday, starting on Oct 2 (this week)**
- **Credit:**
  - ➤ **4**
- **Prerequisite: CS180**
  - ➤ **Preferred: Database, AI, Machine Learning, Statistics, Algorithms**

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Overview

- **Grading scheme**

3 Homework assignments	30%
Program assignment	20%
Midterm exam (Nov 18)	20%
Final exam (Dec 9)	30%

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Homework Policy

- **Hardcopy submission**

- **Submission deadline will be strictly enforced.**

- **No late submission will be accepted**

  - ➢ except that each student will a one-day extension for one of the three homework assignments without penalty if the student contacts the instructor and TA <u>before</u> the submission deadline to arrange a late submission.

  - ➢ No exception on program assignment will be made

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Academic Integrity

- **Print, read, sign, and return it as soon as possible and no later than noon Monday Oct 5.**

Textbook

- ## Textbook:
  - ➢ *Data Mining --- Concepts and techniques*, by Han, Kamber and Pei, Morgan Kaufmann, 2011. (ISBN:978-0123814791)

- ## Reference:
  - ➢ *Introduction to Data Mining*, by Tan, Steinbach, and Kumar, Addison Wesley, 2005. (ISBN:978-0321321367)

Topics

- **Topics:**
  - ➤ **Association Rule**
  - ➤ **Sequential Patterns**
  - ➤ **Graph Mining**
  - ➤ **Clustering and Outlier Detection**
  - ➤ **Classification and Prediction**
  - ➤ **Regression**
  - ➤ **Pattern Interestingness**
  - ➤ **Dimensionality Reduction**
  - ➤ **Big Data**
  - ➤ **…**

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Topics

➢ **Applications**

❖ **Bioinformatics**

❖ **Web mining**

❖ **Text mining**

❖ **Graphics**

❖ **Visualization**

❖ **Financial data analysis**

❖ **Security**

❖ **Software Engineering**

❖ **…**

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