Lec1

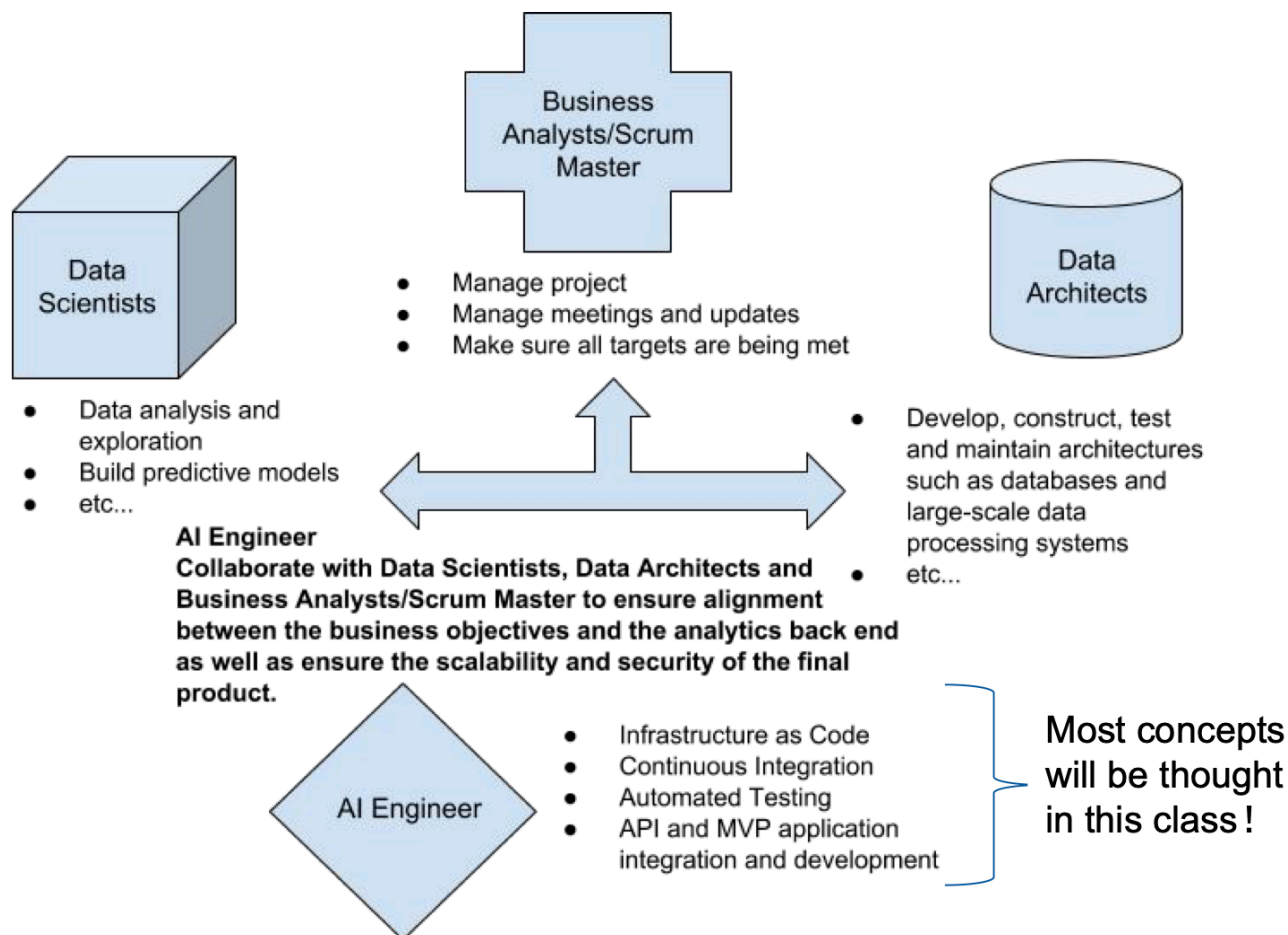## AI Software Engineer

What is AI Software Engineer

Software Processes

Agile
  XP
Theoretical
  Waterfall
Formal
  Rational Unified Process (RUP)：统一软件开发过程（英语：Rational Unified Process，缩写为RUP）是一种[软件工程方法](#)，为[迭代式](#)软件开发流程。
Distributed, open-source
  Bazaar：The *Bazaar* model, in which the code is developed over the [Internet](#) in view of the public.

XP

Roles

XP: Customer, Developer, Coach

Scrum: Pigs (product owner, dev team [3-9 ppl], Scrum master), Chicken (customers and executive management) (http://en.wikipedia.org/wiki/The_Chicken_and_the_Pig)

Activities

XP: Write stories, planning game, test-first, pair programming, continuous integration, refactoring

Work products

XP: User stories, tests, code

Project Management（管理方面）
Project initiation
Project monitoring and control
Software quality management

Development（流程）
Requirements
Design
Implementation

Post-development
Installation
Operation and support
Maintenance
Retirement

Integral processes
Verification and validation
Software configuration management   Documentation development

What is (not) S.E.?

Not just software programming

Individual vs. team

Not just a process

Field that studies several different processes

IEEE 610: "The **application** of a **systematic**, **disciplined**, **quantifiable** approach to the **development**, **operation**, and **maintenance** of software."