CSCI 381/780
Cloud Computing

Overview

Jun Li
Queens College

About me

- Graduated from ECE, University of Toronto
- In 2017-2020, assistant professor at Florida International University
- Move to Queens College, since fall 2020

- Main research interests: applied coding theory
  - distributed computing (for machine learning)
  - distributed storage
- Interested in research? Send me an email!

About this course

- Cloud computing
  - The largest change in the computer industry over the past ten years has arguably been the emergence of cloud computing: organizations are increasingly moving their workloads to managed public clouds and using new, global-scale services that were simply not possible in private data centers.

About this course

- In this course, you will
  - learn basic concepts of cloud computing
  - understand internal technologies of cloud computing
    - including but not limited to **virtualization, networking, storage, database, data analytics, machine learning, etc.**
  - get hands-on experiences of using cloud service and cloud applications
  - Want more practice? Consider 381 Applied Cloud Computing

Topics

Virtualization

Container

Networking

Storage

Caching

Database

NoSQL Database

Data Analytics

Graph Analytics

Streaming Analytics

Geo-distributed Analytics

Resource Allocation

Machine Learning

Consistency & Fault tolerance

Security & Privacy

Schedule

- Time: Tu & Th, 12:15 PM - 1:30 PM
  - last 5-10 minutes may be used as Q&A
- Instructor: Jun Li (jun.li@qc.cuny.edu)
- Office hour: Tu 10:30 AM - 11:30 AM (on Teams)
- Email/Teams communications will be responded to within 24 hours.

Textbook

- No textbook
- Research papers related to the upcoming topics will be released every week and you are expected to read them.

Website?

- Online materials will be posted on the course website
  - https://boole.cs.qc.cuny.edu/li/cc/
- Announcements & Questions: Microsoft Teams
- Projects & Grading: Blackboard

Grading

- Projects (50%)
- Mid-term exam (20%)
  - The week of Mar 21, take-home exam
- Final exam (30%)
  - May 18, 11:00 AM - 1:00 PM, SB-D133

Grading

- Your final letters will generally be converted from your grade using the following rules:
  - A+: >= 97%, A: [93%, 97%), A-: [90%, 93%)
  - B+: [87%, 90%), B: [83%, 87%); , B-: [80%, 83%)
  - C+: [75%, 80%), C: [70%, 75%)
  - F: < 70%

Cloud Resources

- AWS Educate credit ($100)
  - https://aws.amazon.com/blogs/aws/aws-educate-credits-training-content-and-collaboration-for-students-educators/
- Google Cloud credit ($300)
  - https://cloud.google.com/free
- Microsoft Azure free credit ($100)
  - https://azure.microsoft.com/en-us/free/students/