Careers, Education, and Universities

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Agenda

- Introduction

- In Demand

- Real World Jobs

- Deliberate Practice

- Universities
  - Adjuncts
  - Viewpoints

- Questions

Instructor

- **Dr. Paul Comitz** pcomitz@umbc.edu
  - Adjunct Faculty since 1990
    - At UMBC since 2000
  - Career Highlights
    - Embedded software engineer
    - Systems Engineer
    - Dir of Software Development
    - Program Manager
  - Still a student ☺
    - BS electrical engineering
    - MA Management
    - MBA
    - MS Computer Science
    - Ph.D. Computer Science
    - [Coursera](), [edX](), [Udacity]() (always) in progress

Instructor

- **Career Highlights**
  - Grumman/Northrop Grumman
    - Embedded Flight Computer Assembly Language Programmer
    - Systems Engineer
  - Boeing
    - Air Traffic Mgmt Department Head
    - [Network Enabled Operations Chief Engineer](#)
  - MITRE
    - US Census Bureau
  - Raytheon
    - Software Defined Radio

In Demand

- Quantum Computing
- Artificial Intelligence
- Cybersecurity
- Blockchain
- Best:
  - Combination of CS/IT and another discipline
    - Physics
    - Medicine
    - Manufacturing
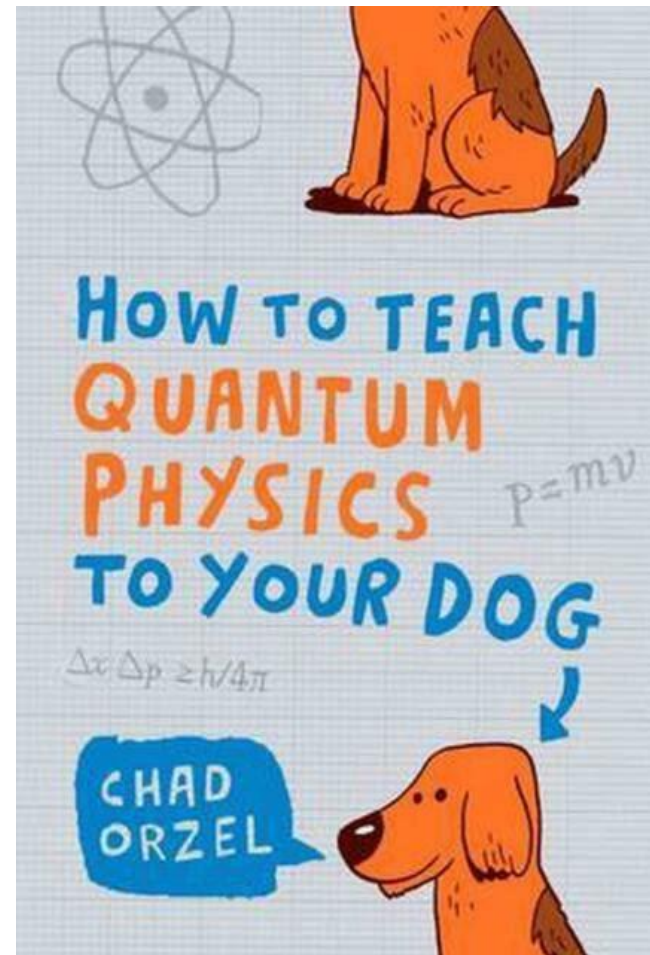
Learning is Lifelong!
TEDx Talk – Does Practice Make Perfect ?
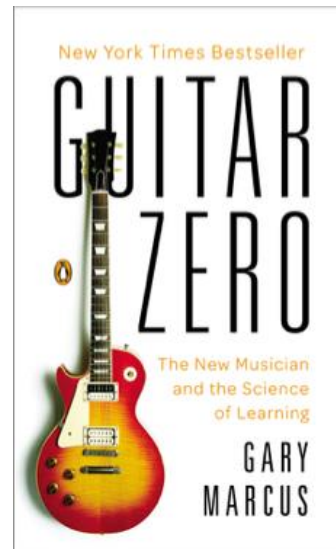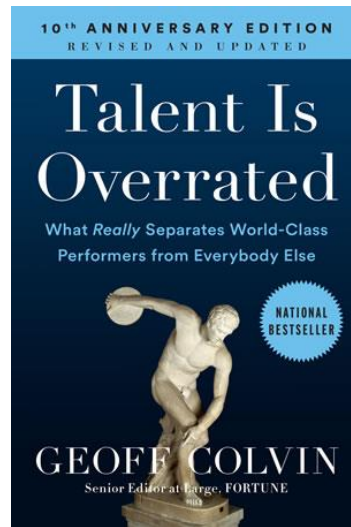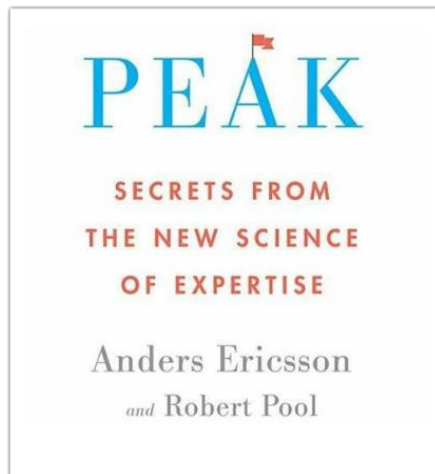
- **Deliberate Practice**

  - Get Feedback

  - Outside comfort zone
    - Get uncomfortable

  - Maximum effort
    - (put your devices away!)

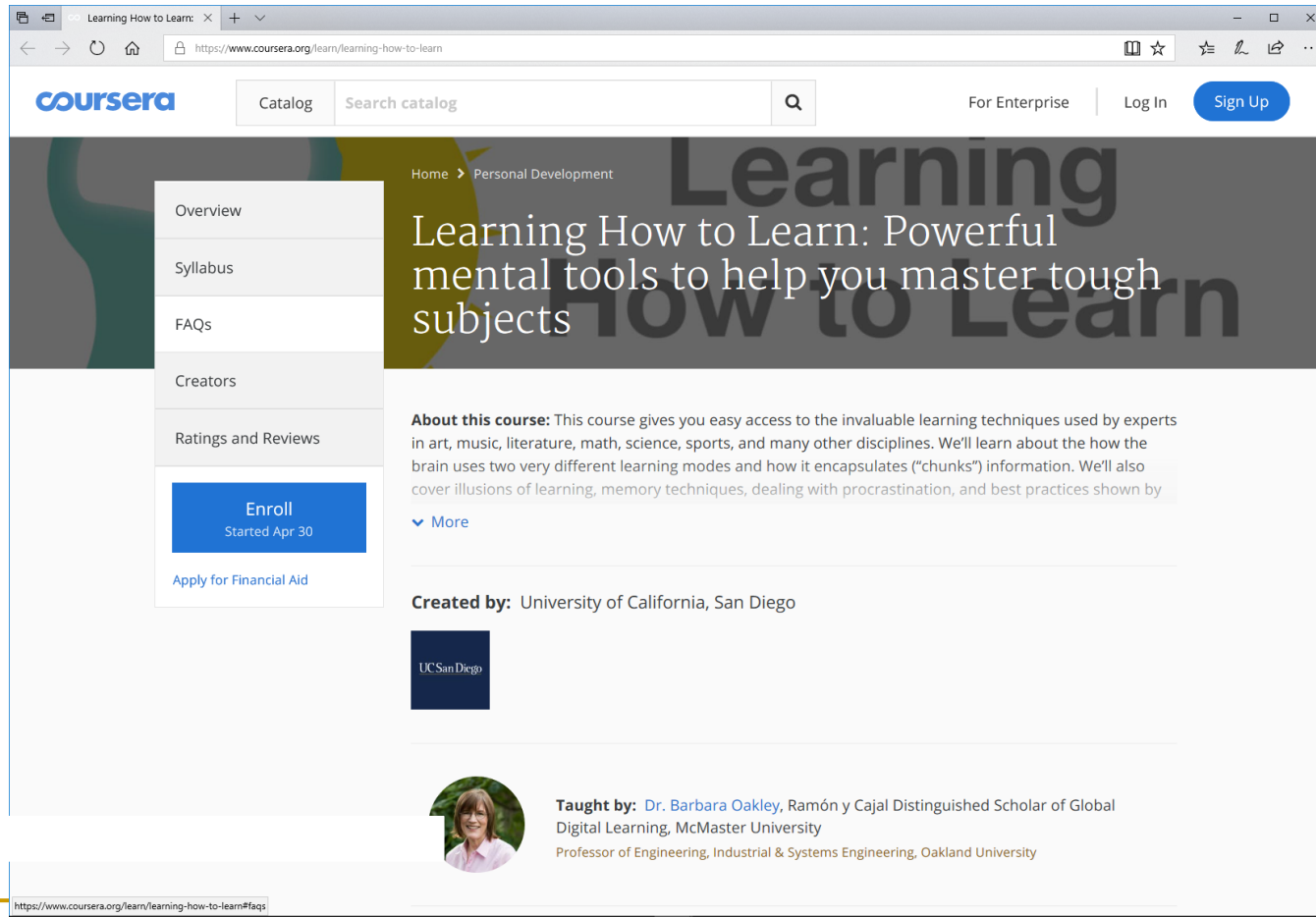 - Full attention

  - Goal Oriented

What can I do?

■ Read!

❑ All I have learned I learned from books
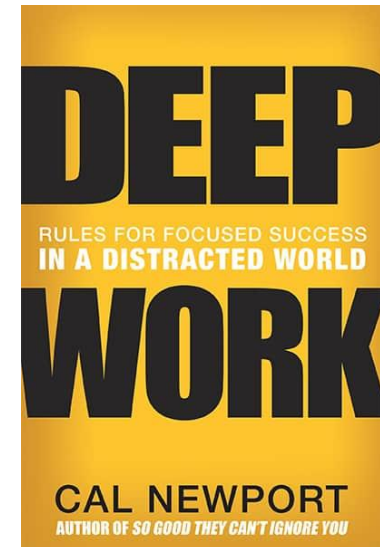
What can I do?

- ## Take Courses!

What can I do?
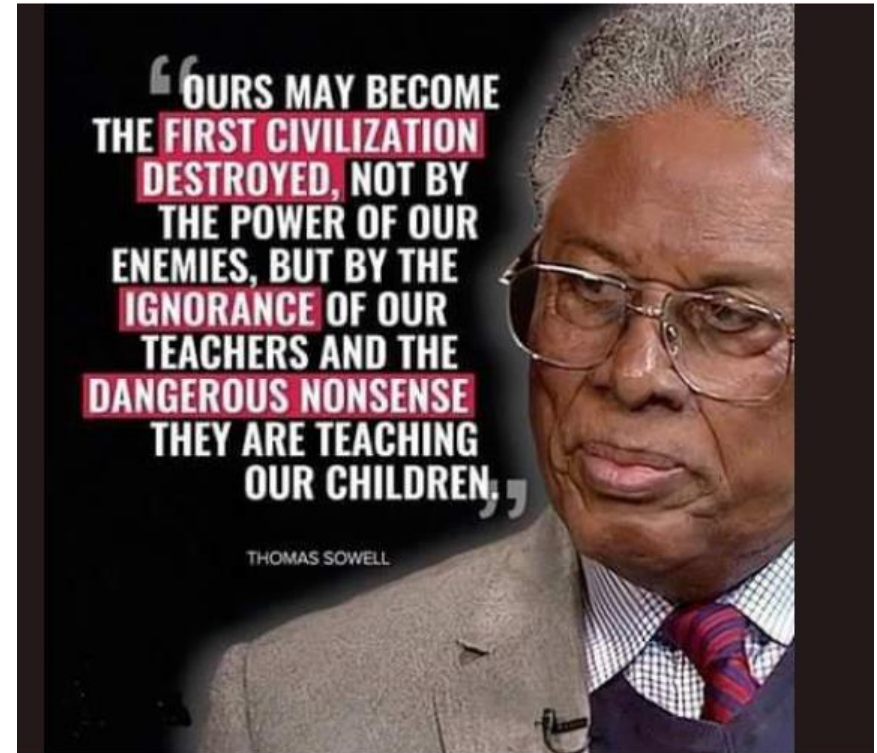
- Apply the techniques!

Avoid the Echo Chamber

- Do universities encourage many points of view?

- Censorship on campus and in social media

- Question the narrative

   - Gell-Mann Amnesia

OURS MAY BECOME THE FIRST CIVILIZATION DESTROYED, NOT BY THE POWER OF OUR ENEMIES, BUT BY THE IGNORANCE OF OUR TEACHERS AND THE DANGEROUS NONSENSE THEY ARE TEACHING OUR CHILDREN.

THOMAS SOWELL

Adjuncts and Universities

- **Universities exploit adjuncts**
  - [SlideShare](#)
  - [UMBC](#)
- **What can you do ?**
  - Speak up
  - Talk to your advisors, Deans, and Department Chairs

General Advice and Summary

- Work for a small company if you can
- Learning is lifelong
  - Sharpen the saw – continually
- Universities are not the only option
- Consider multiple points of view
  - Universities don't always provide this
- Career
  - Practice interviewing
    - Make a video with a 90 second intro
    - Interview frequently
    - Follow up
    - Check out career fairs
    - Huntsville Hiring Event