Shawn Shamsian

- Me
- other instructors
- TAs
- Course Producers
- Graders

http://www-scf.usc.edu/~haofeng/csci570.htm

Roles and Responsibilities

- Me — lectures
- Discussion sessions — taught by other inst's
- TAs
- Course producers
- graders
- Dept advisors — reg. issues

Textbooks:

- Alg Design by Jon Kleinberg & Eva Tardos
- Supplemental Text:
  Intro to Alg's.
  3rd edition

Your responsibilities

- Attend lectures and discussion sessions
- Study material from textbook.
- Do HW problems
- Do as many problems as you can from the back of the chapters

your grade:

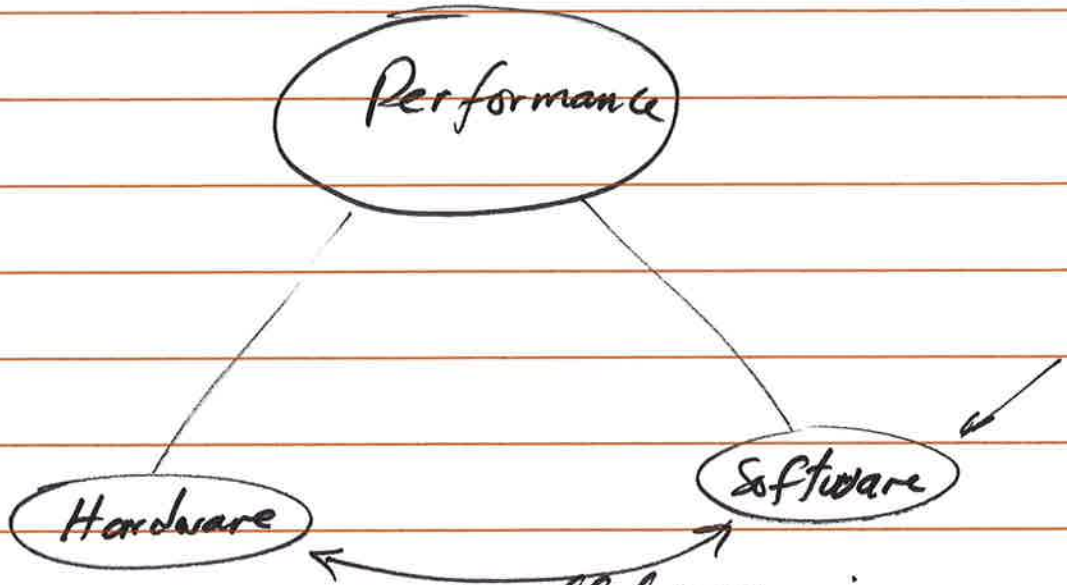
Exam	1	30%	Feb 20, 3:30-5:30
Exam	2	30%	Apr. 3, " "
Exam	3	40%	May 1, " "
		100%	

Prereq's

- Discrete math : mathematical induction
- Asymptotic notation
- Sort methods
- Basic data structures : arrays, stacks, queues, linked lists
- Basics of graphs : trees, cycles, adjacency list, BFS, DFS, DAG, ..

- Introduction
- Review
- Major alg. Techniques
  - Greedy
  - Divide & Conquer ——→ Exam 1
  - Dynamic Programming
- Network Flow ——→ Exam 2
- NP, NP-complete, NP-hard
- Approximation methods
- Linear programming ——→ Exam 3

Kharazmi 780-850
Algorithm



parallel processing
- SMP
- DMP
- hybrid

Memory Heirarchy

- Proof of correctness
- Better problem solving skill
- " interviews