Job-Centric Plans of Study for CompE: Advice to CompE undergrads (especially important to sophomores and juniors)

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Introduction

• My name is T. N. Vijaykumar
• http://www.ece.purdue.edu/~vijay
• I am a faculty in ECE
• I work in computer architecture
• I teach 437
Three questions

• Q1: Do you want a CompE job at Microsoft, Google, Apple, Intel, Nvidia, Facebook, Amazon, and the like?
  - jobs and internships

• OR you may go to grad school in which case do you want to apply to the top CompE programs?
  - I assume your answer is yes to one or both
Three questions

• Q2: What are the key CompE courses needed for either of these goals?
  - OO programming (30862), OS (469), security (404), compilers (468), AI (473), architecture (437), embedded systems (40862), networks (463)
  - Other courses are key too and lead up to these but these are what companies/grad schools want
  - All except 437 are software courses but many software job interviews ask about 437 content
  - 437 is a key distinguisher from Purdue Comp. Sci.
  - Be broad within CompE (don’t specialize and be narrow) and take most/all of these - which of these is hot changes over time so be prepared regardless
Three questions

• Q3: When would many, if not most, of you interview for jobs or apply to grad school?

  - Fall of Senior year
Key Implication

• You must take MOST of the key courses BEFORE the end of Junior year
  - Taking ALL of those courses may be impossible
  - Missing more than one of the courses would likely lower your job/grad school prospects

• Some plans of study to achieve this:
  - 264, 270, 362, 368 are prereqs for the key courses and should be done in the Sophomore year
  - Missing more than one of 264, 270, 362, 368, 337 in the Sophomore year (yes, Sophomore) is IRRECOVERABLE - better not to miss any