

EE16A HW #0

Background:

Hi, my name is Vedaank Tiwari. I've been in the Bay Area (Los Gatos) my whole life. My parents are from India and I love to go visit my family...like 99% of all my relatives are still in India. I love to fence (yes with real swords) and have been fencing Epee competitively, nationally, for the last 6 years. I also love to play basketball, and no I am not a bandwagon Warriors fan. I am an avid technology geek and proud nerd. I love tinkering around with things, taking them apart, and figuring out how they work. I love a good challenge and absolutely love playing strategy games, including chess, board games, card games, and video games.

From this course, I would like to expand upon my burgeoning interest in hardcore engineering. I was a software fan for the last couple of years, but my last couple internships have helped me open my eyes to the vast ecosystem that supports software programming and computers, in particular electrical engineering and mechanical engineering. I want to be able to know and apply both the software and the hardware side together to solve issues and understand what is happening at every level of computers and hardware, so I can utilize these skills to tackle everyday challenges.

I am really into computer science and now computer engineering and would really like to understand the math behind all these complicated calculations and formulas, and understand the close relationship between computer science, computer engineering, electrical engineering, and math.

Wow, a hard one. One technology I would like to see in the next 20 years is a better battery. Batteries are really important in a wireless, clean, electricity driven future, and I think that modern batteries are simply not up to the task. While Li-ion Polymer batteries are great, they can be dangerous, they have short lives, take a while to charge, and are not dense enough for the future. A new type of battery that is much denser, safer, lighter, and one that charges much quicker could be the key to the wireless future. That was the slightly boring answer. The fun answer would be some way to get really fast internet free, everywhere with ultra-low latency and ping times. I firmly believe that the internet is too important a resource to be bought and sold. Every person should have internet access if we want to grow society as a whole. Internet is knowledge, and knowledge is the key to making sure each coming generation is smarter, so they can make better decisions, elect more competent politicians, and overall pragmatically approach the world's problems to solve them without pre-conceived notions or doctrines. Also YouTube and Netflix would be insane at >1GB/s speeds.

So far at Berkeley, I have taken Math 1B and in high school I took Physics, both mechanics and Electricity and Magnetism, I have also taken BC Calculus.

I am a hardcore Windows user, a proponent of the glorious PC Master Race. Macs are fine, and I do enjoy using certain Linux distributables, like Ubuntu and Fedora, but my heart lies with Windows. I enjoy having a desktop pc that can thoroughly roast any Mac on the planet.

I believe marketing was the key to the iPhone's success. While it did have some revolutionary technology, Android did catch up quite quickly, however Apple's marketing is legendary. The iPhone was something entirely new that made phones fashionable and good looking. It was also quite simple to use for the average person, and has become so ingrained in society as a symbol of status and fashion that people use it almost religiously. Even though the iPhone never had the best camera, most ram, best

screen, best SOC or best anything really. Its combination of ease and fashion made it almost an instant hit, and (along with Windows Vista) basically saved Apple from probably dying.

Syllabus:

Midterm 1: Oct 4, 2017 @ 7-9pm

Midterm 2: Nov. 6, 2017 @ 7-9pm

For exam accommodation, email Olivia Hsu @ olivia-ee16a@berkeley.edu within two weeks after the start of class.

HW is due Monday Night @ 11:59pm

Yes, going to different discussion sections is OK

We get 1 HW drop

50% credit on self-grades up to 1 week late

Self-grades are due Thursday @ 11:59pm after HW is due

Complete submissions includes a scan of work, printout of the IPython Component, and the IPython code. Must submit self-grades to receive credit.

4+ unexcused labs will fail us.

Piazza should be checked regularly.