Alumni Panel Tips Notes

* Must learn programming going into other engineering fields

Facing Challenges in Class

* Googling solutions on the internet helps overcome challenges in class
* Keep trying to solve the problem at hand
* Focus on your own path, and don’t be discouraged if others do something that’s better than your work or have higher accomplishments
  + There’s always going to be someone better than you!
* Think through problems and flowchart your work + use google to help you solve problems
* Don’t be afraid to ask for help from people who know how to do it
* Don’t cut corners, have the mindset to go above and beyond
* There isn’t only one correct answer/way to do something in CS
* Just start coding, and troubleshoot problems as you go

Mechanical Engineering

* UCSD: one hands-on project for freshman and senior year each

Project Based Learning in College

* Communicate with team members daily
* Study in groups and work with others, especially for the first couple years of college (and for general education courses

Coding

* Knowing how to code helps you do math in the forms of vectors and matrices
* Can code out what your object will look like for 3D printing
* Problem solving knowledge besides coding also helps in other classes
* Jupyter notebooks are being used for technical papers for interactive work
* Stats major: some projects are done in R
* Matlab is used in many fields, as well as CS

How to Get a Job or Internship as a College Student

* Show up to office hours
* Ask teachers questions
* Stand out to your teacher and set yourself apart from other students
* Many companies look for interns starting in September when the school year starts
* Have a resume ready by early September of the year before when you want to work/intern
* Create a LinkedIn profile
* Build a network of people you know to reach out to get job/internship opportunities
  + Parents, friend’s parents, professors, engineers you know
* Getting a referral from someone who works at the company is a good idea

UCSD

* Autonomous car projects: go-kart and indy500 autonomous cars
  + Triton AI
* Can ask professor if there’s any space in the lab for you to intern
* Python scripting, web development, IT tools, how Linux works: all helps in college
  + Colin used these skills at his internship at Northrup Grumman: technical diagrams, website for flight data that takes information from the test database, scripting

Working on Personal Projects

* Many companies look for personal projects that you’ve done or made
  + Help set you apart from other applicants to college/jobs/internships
* Visual projects are great - ex. Algorithm visualizers
* Can even make something fun; doesn’t have to be very life changing
* Sorting algorithms, travelling salesman problem, data visualization
* Can make scripts to make work on Mechanical Engineering projects easier
  + Data manipulation
* Computation Aided Manufacturing
  + Editing G-code + manipulating commands
* Material simulations
  + Can help you convert hand functions to actual functions --> set up a server --> run the data