The Top Majors For The Class Of 2022
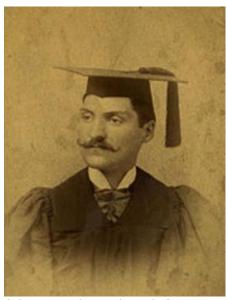
Greetings, class of 2022! I realize that right now you're not even thinking about your careers, or even college. After all, you're eight, and there are video games to play, cooties to avoid, and homework to do. But in a world where there are competitive preschools, it's never too early to start thinking about your future.

First of all, it's a sad fact that a college education will remain expensive. The Student Loan Debt Riots of 2016 and the rise of online education will slow the growth in tuition, but budget cuts and competitive admissions are keeping tuition high. What's more, businesses will still be dominated by people who don't trust online education and regard an in-person degree as superior. So just as they are today, universities will be vital career preparation in a decade.

No matter what career you decide to go into, there are two things that you need to learn no matter what. The first is a second language – and based on demographics, we recommend that language be Spanish due to the influx of Hispanics into the United States or alternatively Hindi or Portuguese to deal with businesses from the India and Brazilian powerhouses. The second thing you need to learn is how to program. Programming skills are vital in this ever-shifting economy, because no matter what you're doing, it's a virtual certainty that computers will be involved. If cost or time is an issue, forget learning Spanish and focus on C++ or Java instead.

'Don't Go To Law School,' 'Move To Asia,' And 28 Other Pearls Of Wisdom For 2012 Grads **Kashmir Hill** Forbes Staff

And now, without further ado, when you're thinking about majors, here are the ones to focus on:

Math

The blueprint of the future will be written with mathematics, which underlies virtually all aspects of future life. As Big Data becomes a bigger part of business, so too does the demand to understand and apply that data. That's where mathematicians come in. Despite the fact that computers are improving, writing algorithms remains more of an art than a science. And after algorithm-writing computers almost destroyed the financial markets by replacing the portfolios of several of the world's great billionaires with investments in wool futures in 2019's Black Sheep Friday, both businesses and regulators are more inclined to trust humans to develop the algorithms underlying modern programming.

Robotics

According to the Bureau of Labor Statistics, the population will continue to age while young workers will be a smaller part of the labor force. This creates a demand for personal services that simply can't be met – and robots will fill the void. The advent of personal service robots means that the elderly can live longer on their own before going to retirement homes, and many other industries are turning to robots as well, including the fast-growing health care industry. This will create a huge need for people in the robotics industry, from programming to engineering. For those interested in robotics as it relates to national security, several experts suggest that robot suppression will become a key industry in the future. As Springfield University Professor John Nerdelbaum Frink, Jr. commented a few years ago,

"Elementary chaos theory tells us that all robots will eventually turn against their masters and run amok in an orgy of blood and kicking and the biting with the metal teeth and the hurting and shoving."

Agricultural Engineering

The future of food is going to be a major challenge. Between climate change, population growth, and people thinking its a good idea to plant grass in desert cities, fresh water supplies will be increasingly scarce and the amount of land available to farming will shrink. In the meantime, as more and more countries get richer, they demand higher-priced, better tasting foods that in turn put even more pressure on a straining agricultural system. This will lead to the rise of Agricultural Engineering – a profession focused on developing better and more sustainable ways to grow food to meet the needs of the world. Just avoid working for the Soylent Corporation after you graduate.

Hospitality Management

As people live more of their lives virtually, restaurants and clubs have become a Mecca for people who crave real, personal contact. The explosion of good restaurants in America (as documented by economist Tyler Cowen) continues unabated. But as the market gets competitive, there's an increased demand for people with the skills necessary to ensure a restaurant thrives. This is especially true The ability to juggle in a time where food production is getting harder and more expensive, as noted above. Mom and Dad opening a place just doesn't cut it anymore – unless they're both graduates of a good program.

Health and Biotechnology

The BLS expects health care to continue to dominate the economy as the population ages and life expectancies increase. In the meantime, more and more diseases are developing resistance to antibiotics, and more and more industrial processes have been to produce harmful effects to humans and ecosystems. All of these challenges provide promising career paths for biotechnology, especially as the tools, such as supercomputing and gene sequencing, become ever cheaper. Scientists in the biotechnology fields will be curing diseases and cleaning up the health messes caused by the scientists of yesteryear, and the need for doctors and nurses will continue to grow unabated.

Pre-Law, With A Focus On Elder Law

When you get to college, you'll probably have plenty of people advising you not to go to law school. That's probably good advice if you aren't sure what you want to do as a lawyer. The legal job market is saturated today, and the rise of legal outsourcing and computer programs to manage litigation and other legal matters will probably keep the pressure on the market. That said, there is an opportunity in the law if you want to help some of the most vulnerable – and that's Elder Law. People are going to continue to live longer in the future, but treatments for Alzheimer's Disease and other forms of dementia aren't likely to keep pace. The World Health Organization estimates that by 2030, the number of people with dementia worldwide will double to over 65 million worldwide. As robots make it easier for the elderly to stay home, those with dementia will be vulnerable to criminals, identity thieves, and greedy family members. That's going to create a bigger need for lawyers who can serve as guardians and advocates for those with dementia and help protect them from being preyed upon.

Quantum Engineering

For decades, physicists focused on quantum mechanics as more of a mathematical abstraction than a description of reality. That's changing, though, with new

discoveries of quantum impacts to everything from nanotechnology to biotechnological processes. With the rise of technologies that are forced to take into account the actions of quantum mechanics, a need is going to arise for specialists capable of taking advantage of quantum mechanical effects in electronics and other products.

3-D Printing Design

3-D Printing is a field that's fast becoming mainstream, with 3-D printers being imagined for applications ranging from the manufacture of airplane wings to buildings. What's more, the cost of 3-D printing is going down substantially. This year has already seen the announcement of the first sub-$500 3-D printer, which is the price point many experts believe necessary to make 3-D printers mass devices. With the rise of 3-D printing as a means of manufacture for large businesses and household items, the need for engineers who know how to design for 3-D printing is going to be enormous.

The Liberal Arts

In an interview with NPR, the late Steve Jobs said that one of the goals of Apple "was to bring a liberal arts perspective and a liberal arts audience to what had traditionally been a very geeky technology and a very geeky audience." That's not a trend that is going to be limited to Apple. As technology continues to advance its role in our society, the need for liberal arts majors is going to increase. Already, companies are turning away from the stereotypical view of liberal arts majors as "future burger flippers" and are realizing that they can be a major asset. From the design of user interfaces to the ability to write engagingly to the ability to adapt and think logically, a liberal arts training provides a broad base of skills that enables technology companies both identify and meet the needs of their customers. So what's going to be the major that makes it hard to get a job in the future? Probably business, as the rise of a "gig economy" dominated by freelancing makes basic business skills a must-have for everyone, so those who major in it will have a harder time finding work.

Aerospace Engineering

The 2020s is the decade that will see space travel finally come into its own. This is going to involve all sorts of engineering, from designing rockets and spaceships to designing satellites and zero-g environments. With companies ranging from SpaceX for passenger travel, Planetary Resources looking into asteroid mining, and Nanoracks developing platforms for space science, the need for people who can engineer for outer space is going to – pardon the pun – skyrocket.

Follow me on Twitter or Facebook. Read my Forbes blog here.