FIND YOUR FUTURE:

A spotlight into science graduates and how their majors shaped their career pathway

Contents

SU JIN

CANVA SENIOR DATA ANALYST

What degree did you study?
Bachelor of Science (Financial maths and Statistics).

How did your major influence the intern/research/grad roles that you applied for/currently working in now?
When I applied for the DSTO (Defense Science and Technology Organisation) internship, my major was a prerequisite/assumed knowledge. For this internship, I was involved in a major project to determine the safety area range of missile launches.

Do you feel that there is room for growth or diversity in the type of work you can do in your current field?
Yes! My current field is data analytics and as a senior analyst, I am involved in leading analytical pieces including high-end decision support to senior management, prototyping untapped data services and products. Potential growth opportunities as the next step in this field could include being a people manager, becoming more involved in strategic projects, rather than operations, becoming a machine learning expert, data science team manager.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science degree can lead them to?
It is highly recommended to gain work experience by doing volunteer work or having a part-time job. Also, internships would be really beneficial as well as overseas entry level opportunities. For the independent thinkers and workers, I would recommend trying freelancing.

What are some career pathways for science students?

Apart from medical related jobs and research, a lot of large corporate will higher students with a STEM background into roles such as:

- Market research (psychology)
- Consulting (all STEM)
- Data teams (maths, statistics, computer science and data science)
- Dietician and nutritionist
- Environmental related jobs
- State government/federal government (particularly defense, treasury, industry planning, Australian Bureau of Statistics (ABS), Department of Finance)
- General project officers (all STEM)
- Education Sonographers (may need masters)
- Sales representative for pharmaceutical/medical companies
- Lawyers (Can consider doing a post grad in law)
- HR for scientific companies
- Research and development in large corporate companies
- Robotics/Artificial Intelligence (AI)
- Start your own company!

VIVIAN YEAN

WESTPAC GROUP TECH GRADUATE

What degree did you study?
I started in Bioinformatics Engineering, and ended up with Bioinformatics Science and Genetics Honours.

How did you choose your major? Did you ever consider changing throughout your degree?
I chose my major with some input from my brother who had finished two degrees already - we looked through a lot of uni booklets that were given to us either on open days or those giant ones from school. I think what really made up my mind was my wanting to learn more about biology, with a side serving of computing.

I eventually found out that the side serving was a rather large salad, so decided to ask for a smaller, more manageable one.

After finishing the science degree and being thoroughly destroyed by the salad, I was at a loss for what to do, but luckily got an opportunity to learn more about research through an honours year, as the bioinformatics skillset has a high demand in biology. It turned out to be the toughest but most valuable year in developing those skills.

How did your major influence the intern/research/grad roles that you applied for/currently working in now?
Those experiences played a huge role in working out how to go about deciding on a career path - the confidence and analytical skills I gained from honours made me feel more comfortable in applying for roles in technology in various industries such as banking, which is where I currently work.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science degree can lead them to?

I think no industries and careers are off-limits. Keep your options open and be ready to try anything! I think especially right out of uni, a lot of employers are looking for enthusiasm and willingness to learn so definitely use that to your advantage.

I would say that each student has a unique perspective, and that is an invaluable strength. It's about learning to leverage their learnings from their life, experiences, major and uni and contributing those ideas and experiences to their industry or career, as well as how to articulate how they can add value for the area that they're aiming for.

What was the largest challenge that you faced in your science degree/major and how did you overcome it?

The computing/maths part of my degree! And now I work in technology! In a bank! Life is a mystery.

I think the major issue was not being able to understand or see the application of what I was learning so I found engaging with the content difficult, but after working out how to actually apply those skills to real world problems, it became easier.

It really helped to know I wasn't alone in finding it challenging. When I started in Bioinformatics Engineering, there were around 10 people in my cohort, and by about mid year, more than half had moved on to other courses. I think there's strength in knowing when you've tried your best and when to give something else a chance.

MANISH SRIJAM

SALESFORCE SOLUTION ENGINEER

What degree did you study?
I studied a Bachelor of Medicinal Chemistry (Honours) and then went on to pursue a PhD in Chemistry and Nano-Medicine.

How did you choose your major? Did you ever consider changing throughout your degree?
When I finished High School, I was in two minds. Part of me was intrigued by the world of chemistry and science, the other part by computers and technology. The two degrees that I considered were Computer Science and Chemistry. After attending a Career's day, I spoke with Associate Professor Jonathan Morris, and from there decided that Medicinal Chemistry was the path that I wanted to pursue.
During my degree, I never thought that I would spend another 3.5 years pursuing research and was fairly adamant that once I finished honours, I would go get a job. However, I really enjoyed my Honours research year in the Gooding group and the passion for my research project is what led me to continue on to do a PhD.

I never really considered changing my major but I often had doubts about what I wanted to do long term. In the end, it always came down to following my interests and passion, which always (even now) led me in the right direction.

How did your major influence the intern/research/grad roles that you applied for/currently working in now?
My PhD was centred around working on creating a diagnostic tool for early disease diagnosis. What I do now and what I studied at uni have very little connection. However, when I started applying for internships and jobs, I initially started looking for things to do with science and commercialisation. The only internship I applied for (which in hindsight, I wish I had applied for a lot more) was for a biotech commercialisation company.

I did end up getting offered the internship but a year after I applied and 6 months after I started my full-time job. I then applied for a job at two tech companies, Qualtrics and Salesforce. I have always been drawn towards tech (hence the battle between Computer Science and Medicinal Chemistry) and more so after my PhD where I had to learn small amounts of coding and a lot of creative problem solving. This is also factored in my decision to move towards a career in tech.

Do you feel there is room for growth or diversity in the type of work you can do in your current field?
There is an incredible opportunity for growth and plenty of diversity in my field. On the topic of diversity, Salesforce prides itself on fostering a workplace of inclusivity, equality and diversity. This is observed in many facets, for example my team all come from different educational backgrounds. In terms of room for growth, you can go wherever you're interested in. Managers here focus on helping you become what you want to be and the company offers so many courses to help you get there.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science degree can lead them to?
This is such a relevant question and almost everyone I studied with went through the same dilemma. The biggest piece of advice that I can share is that no one person will have the same career path as another. I found it extremely challenging to "give up" on my science background and get a job in tech, but once I did it led to me finding my dream job and being incredibly happy.

If I look at all the people I studied with, some went on to work in government departments for health/science/environmental work, some went on to become teachers, so pivoted and went into finance, others stayed on to go into research and I went into tech. While at times it may feel like there aren't any jobs out there in your field or you are wasting your degree if you get that other job, the most important thing is to follow your passions and be open-minded. There are so many types of jobs out there and your degree definitely does not define what you will do for the rest of your life. Try something new that sounds interesting to you. If you like it, keep going. If you don't, start again.

My mentor helped bring perspective of this for me. At our age, we have 40+ years left in our career so spending a few years trying to find that job that makes you happy is such a small investment into your future success and happiness.

What would you say is a benefit of doing a science degree?
I love my science degrees, even if I hated it at certain points during my studies. I learn so many invaluable things from it and I would not do things differently in hindsight. The top benefits I see from doing a science degree: I look at the world differently and see problems with a different perspective, I am open-minded and like to have discussions about things, and it taught me to think about things in a different way. When I see a problem, I see a way to make things better and do things differently.

What has been your career journey so far?
I started working at Salesforce in 2018 as a Business Development Associate. This role was focused on developing business acumen in the tech world and helping sales teams with finding knowledge and insights into customers.
Four months later I was promoted to a Sales Development Representative role. I spent 12 months in that role, where I learnt the ins and outs of inside sales, working with leads and customers and how to have conversations and empathise with potential customers. During my time in this role, I learnt about a position called Solution Engineering and it honestly sounded like the perfect fit for me.
At the end of those 12 months and after a lot of hard work, I managed to transfer internally to a position as a Solution Engineer. A Solution Engineer is someone who works with the sales teams and prospective customers to deeply understand their business, challenges and goals, and then takes that information to create a solution. The goal is for this solution to help solve the customer's business challenges and create a vision for what can be achieved.

I find this role incredibly interesting, challenging and rewarding. It is something that I believe flexes a lot of the skills that I developed during my time studying at UNSW. Importantly, I would not have gotten into this role without having followed my passion and seeing where it led.

GAGAN JALANDHRA

PHD STUDENT

What degree did you study?
Bachelor Materials Science & Engineering/Masters in Biomedical Engineering.

How did you choose your major? Did you ever consider changing throughout your degree?
I had an interest in engineering, design, medicine and biology, so I scoured the UAC guide course descriptions and attended countless university Info Days to get more information.
Nope, I loved what I did!

How did your major influence the intern/research/grad roles that you applied for/currently working in now?
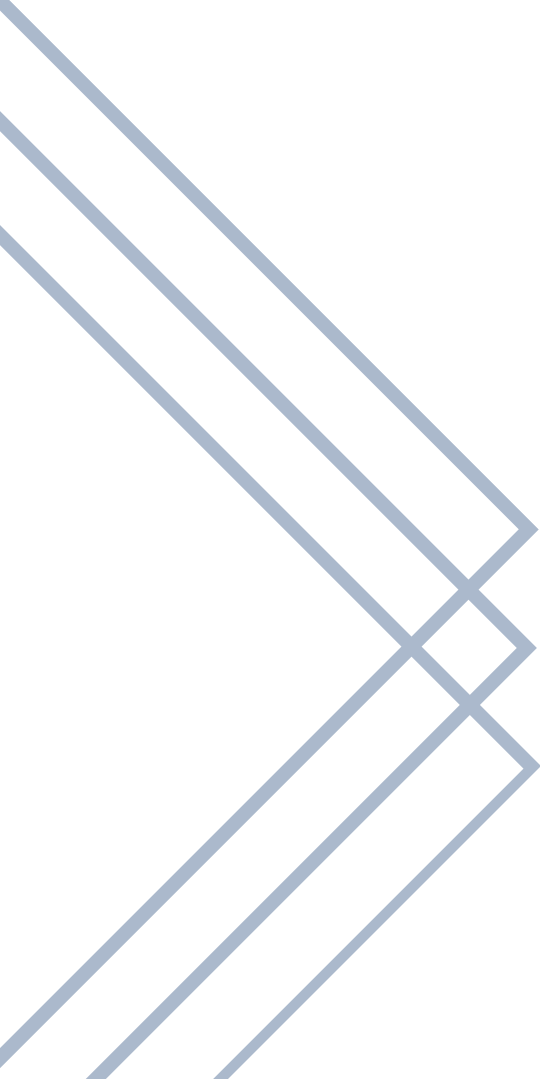I knew I liked research, the freedom to design a project and to learn hands-on outside the classroom/lecture-theatre. My courses allowed me to build a clearer picture of areas I was interested in (and those I was not interested in).

What would you say is the benefit of studying a science degree?
Being able to learn what you're interested in. UNSW offers degrees in so many different areas of science, you're sure to find something you're interested in.

Were there any extra/co-curricular activities that you engaged in during your time at university?

I loved getting involved and experiencing/learning things outside of the degree I was studying. I was on the executive teams of several societies, took up opportunities to volunteer wherever I could make time, picked up free courses, tried out social sports, did peer mentoring, worked as a Student Ambassador, the list goes on. The point is, doing extra-curricular activities allows you to learn skills you wouldn't normally learn in a classroom. You meet, learn from, and learn to work with different kinds of people. You learn to prioritise and manage your time. By doing things that may not directly relate to your grades, you develop an appreciation for giving and begin to be more conscious of the world around you. Not to mention, you build connections and employers love a well-rounded candidate!

VIVIAN SHEN

GOOGLE STEP INTERN

What degree do you study?
B. Data Science and Decisions, Computational major.

How did you choose your major? Did you ever consider changing throughout your degree?
In your first year of Data Science, you're advised to take Data1001, a course which gives you a taste of the 3 majors Data Science offers: Business, Quantitative and Computational. From Data1001 and the other first year subjects I also took, I found myself enjoying all the programming courses significantly more than my other courses and hence settled on a Computational major.

I did think about whether or not this major would be the right fit for me, whether I wanted to pursue a career with this major and what the opportunities might look like. Ultimately, it always came back to what I enjoyed and what I saw myself doing in the future.

How did your major influence the intern roles that you applied for/currently working in now?
With a computational major, I definitely felt more comfortable applying for technical roles such as software engineering and data science as opposed to more quantitative or business based roles such as quantitative research or technology consulting. As a result, the roles I have worked in have had a heavy computational focus as well.

What has been your career journey so far?
Last summer, I completed a Google STEP internship where I worked as a front-end engineer on Chrome OS, Canvas. This summer, I will be doing a Data Science internship at Atlassian.

Are there any extra/co-curricular activities that you engage in whilst at university? E.g. student societies, volunteering, sport etc. Do you feel that it contributed to your employability?

I was involved in a few societies such as Women In Technology and the Computer Science and Engineering Revue. For me, my student society experiences have definitely contributed to my employability, and that's because I really do value the work and experience I gain from it.

Student societies are what you make of it. It's not just another thing on your resume.

I see it as an opportunity to learn and develop skills such as collaborating with other teams, managing conflicts and building relations. Whilst it is not a necessity to be involved in a student society to increase your employability, it does feel like it better prepared me for interviews and the workforce.

What was the largest challenge that you faced in your degree and how did you overcome it?

For me and I'm sure for many other STEM students, my biggest challenge was settling into a STEM degree and following through with it. I definitely had moments where people would discourage me from pursuing my degree or tell me I shouldn't apply for certain jobs because they might not associate myself with the conventional idea of 'success' within the field. It's so easy for you to lose sight of your goals when you lend an ear to these things. Self-doubt eats away at our confidence.

Whenever I would go through periods of self-doubt, I would revisit my passion and understand why I am pursuing this career and why I enjoy it so much. Additionally, you want to be building a health and safe environment for yourself to grow. You can do this by surrounding yourself with positive, like-minded people whose goals and values are aligned with yours.

SAMANTHA CHAPMAN

HEALTH MANAGEMENT GRADUATE

What degree did you study?
I started off with a Bachelor of Psychology, but then decided I didn't want to do the honours year so graduated with a Bachelor of Psychological Science!

How did you choose your degree?
I did Psychology at high school in the IB and really enjoyed it!

What has been your career journey so far?
In my first year of uni I got a job as a casual ward clerk at RNS Hospital. I also decided to volunteer as a Crisis Supporter on the phones at Lifeline to figure out if Psychology was what I wanted to do.
After 2.5 years as a volunteer I decided I didn't want to be a psychologist and heard about the Health Management Grad programs run by the NSW Local Health Districts. I was already working in the system so knew it was something I enjoyed. I applied and got into the one in my own District, Northern Sydney Local Health District!

Do you feel there is room for growth or diversity in the type of you can do in your current field?
Yes 100%! There are so many different areas I could pursue, and one benefit of the Grad program is definitely that you get exposure to a broad range of things.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science based degree can lead them to?
Network and talk to people. The only reason I heard about these programs is because I took a friend's dad out for a career chat / coffee! You need to be willing to put yourself out there and not expect an amazing job will just land on your doorstep. I stalked a LOT of UNSW alumni on Linkedin and I think that's an awesome way to plan your career.

What was the largest challenge in your degree and how did you overcome it?
I found all the statistics that we had to do in my degree challenging for sure! I made sure I got a good tutor and invested money in myself. It definitely paid off in the end and it taught me the benefit of asking for help!

JOSEPH DO WOONG CHOI

DOCTOR, TRAINEE SURGEON

What degree did you study?
I studied Bachelor of Science (Advanced) at The University of Sydney.

How did you choose your major? Did you ever consider changing throughout your degree?
I had intentions of studying medicine after my science degree. I picked majors based on what would benefit me for medical school. I chose Anatomy and Immunology majors.

How did your major influence the intern/research/grad roles that you applied for/currently working in now?
The majors I chose were geared towards equipping myself to study medicine as a postgraduate degree. I am directly using principles I have learnt from my majors from undergraduate. I am currently a surgical registrar at Westmead Hospital, and routinely use anatomical and immunological knowledge (particularly in kidney and pancreas transplantation I am currently working in).

What has been your career journey so far?
I started Bachelor of Science (Advanced) in 2007, and graduated with Dean's List of Academic Excellence in 2009. I started Bachelor of Medicine/Bachelor of Surgery at Australian National Univeristy in 2010, and graduated in 2013. I was a Junior Medical Officer and Resident Medical Officer at The Canberra Hospital between 2014-2015, and was a Senior Resident Medical Officer at Westmead/Blacktown Hospitals between 2016-2018. Since 2019, I have been an accredited General Surgery Registrar at Westmead Hospital, with the Royal Australasian College of Surgeons (RACS).

Do you feel there is room for growth or diversity in the type of you can do in your current field?
Medicine is a diverse, and broad field. It is constantly evolving as a sector, as new drugs, and procedures are introduced to enhance patient care. There is large scope for research, and change for the broader community.

Were there any extra/co-curricular activities that you engaged in during your time at university? E.g. student societies, volunteering, sport etc. Do you feel that it contributed to your employability?
I represented University of Sydney in the Badge Tennis competition during my science degree. I was also a executive member of the Science Society. I believe that these extra-curricular activities have shaped me as a person, in particular, organisation, teamwork and leadership skills. I believe this has helped me with gaining acceptance into medical school, and broadly, in my career I utilize every day.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science degree can lead them to?
I believe a science student needs to have a plan early on, in terms of what they want to do after their science degree. This could be aiming to do an honours degree, and doing a PhD, which would lead into a enriching academic pathway. Alternatively, there could be plans to do other degrees, such as medicine, dentistry, pharmacy, or physiotherapy to name a popular few. If the latter pathway is to be chosen, the student will need to prepare for the Graduate Medical School Admissions Test (GAMSAT).

Do you have any regrets from your time at uni?
My focus was to get into medical school from my science degree. If I could go back in time, I would have picked easier mathematics/physics/chemistry courses (instead of advanced options), as I believe this would have helped with my GPA further.

What was the largest challenge that you faced in your science degree/major and how did you overcome it. What are some career pathways for science students?

There are limited viable career options from a sole undergraduate science degree. This must be followed by either hourns/PhD pathway, or doing other postgraduate courses. This was the greatest challenge among many science students.

Does a science degree limit you for pursuing a business career pathway or arts for instance?

I don't believe it limits you, however if one were to pursue a business or arts career after a science degree, it would be more useful to find industry options that encompasses both degrees.

What would you say is a benefit of doing a science degree?

It equips students to think logically, laterally and helps to improve your academic writing, reading and communication skills. It equips students to pursue academic science training through honours/PhD pathways) or in my case, into a health sector.

LENA LIU

GENERAL PRACTITIONER

What degree did you study?
I studied Bachelor of Science (Advanced) at The University of Sydney.

How did you choose your major? Did you ever consider changing throughout your degree?
My Interest in psychology and neuroscience lead to these majors. Yes, I initially thought my major would be molecular biology but was eventually set on psychology and then on neuroscience.

How did your major influence the roles that you applied for/currently working in now?
Initially debated in whether to pursue clinical psychology or neuroscience research. I did a year of neuroscience research and found it was not for me hence I entered medicine where there is a good combination of both psychology and biology.

What has been your career journey so far?
After finishing my science degree, I did a year of neuroscience research then entered medicine. After 4 years of medicine, I did further hospital training and then entered general practice training. Currently am a general practitioner.

Were there any extra/co-curricular activities that you engaged in during your time at university? Do you feel that it contributed to your employability?
Yes, volunteering seemed to have contributed to a better CV. However I'm not sure if it impacted my employability.

What piece of advice would you give to students who are trying (and often struggling) to find an industry or career path that their major/science based degree can lead them to?

Do what interests you, it may not be a straightforward road however I was never fully set on what I wanted to do with my life during my undergraduate degree. Don't be disappointed if your eventual interest did not turn out to be what you expected or intended.

What was the largest challenge in your degree and how did you overcome it?

Limited career opportunities in science and difficult accessing grants for research. More funding is needed in the science sector. Being a good scientist is not an easy job, you need good ideas, forward thinking, grants and a good team to work with. Also the ongoing degrees – honours, masters and PhD etc that are required as stepping stones to become established in the field.

What would you say is one of the benefits of studying science?

It helps one to think critically and analyse. Also helps develop persistence and creative thinking.

EUGENE KWOK

RESEARCH SCHOLAR, UNSW

What degree do you study?
B. Advanced Science/B Commerce, majoring in Neuroscience, Psychology and Business Economics. I originally started with a B. Science & Business/B. Law degree but then changed to B. Advanced Science/B. Commerce in my third year of uni!

How did you choose your major? Did you ever consider changing throughout your degree?
I've always been interested in how we think and behave. Initially, I majored in Psychology, however in my 3rd year, I added in a second major in Neuroscience. Both majors complemented each other really well and didn't extend my degree by that much longer. I believe you should study what you are most interested in because then you'll never be bored. I never considered changing from these majors because these were the two that I enjoyed the most!

How did your major influence the intern roles that you applied for/currently working in now?
I interned, worked and have been a member of a Cognitive Neuroscience lab in UNSW for a few years now. This started when one of my third year psychology courses required me to become a research intern at a lab. From there, I continued as a Research Assistant and now I'm doing Honours in the same lab.

What is the largest challenge that you faced in your degree so far and how did you overcome it?
The largest challenge was probably learning to juggle extracurricular, social and other activities (e.g. hobbies) with study. While academic studies is important, it's important to never lose sight of the things that bring you joy and happiness. For me, it was about learning to work smart and manage my time so I would have time for things outside of work and study.

Are there any extra/co-curricular activities that you engage in whilst at university? E.g. student societies, volunteering, sport etc. Do you feel that it contributed to your employability?

I became a part of a lot of student societies, volunteering and extra-curricular in uni. I was on the executive team for UNSW Science Society, a Cultural Mentor, an Arc Street Team volunteer and participated in a whole bunch of different events and programs run by the uni.

For me, getting involved in these kinds of uni activities was really, really rewarding. Not only was it a whole heap of fun, but you meet amazing people and grow as a person like nothing else. I definitely believe it contributes to employability. It makes you much more of an all-rounded person which is exactly what a lot of employers are looking for.