Welcome to fall quarter everyone! I’d like to begin by extending a warm welcome to our new majors. Greetings to our seniors also as you navigate the final year of your undergraduate studies. This is a good time to meet with Mee Ling to file your graduation application and review your degree audit to make sure there are no last minute surprises. I am also happy to chat if you have any questions concerning next steps.

I know many of you may not be aware of this, but the first edition of Student’s T time was published exactly four years ago, soon after I took on the role of Undergrad Program Coordinator. My hope was to create a quarterly that would serve as a resource for our undergraduates and also strengthen our ties as a community. I am proud to say that in some sense this hope has come full circle and today I am delighted to be able to pass on the torch to senior and SPA Co-President, Joia Zhang (class of 2023), who has graciously agreed to curate the content this year. Please join me in thanking Joia for taking on this important role. I am looking forward to seeing how the newsletter evolves under her leadership!

I am often asked for tips on finding research opportunities and internships, and so I would like to conclude my paragraph with a few potential links of interest. As always, if Mee Ling or I become aware of specific opportunities, we will forward them to the statugrad mailing list. I would also highly recommend reaching out to alumni and senior students to ask them for advice and leads. Finally, international students who plan to work off campus should consult this page for our most up-to-date policies on curricular practical training.

- Fall 2022 UW Data Science Career Fair: October 20th, 11:30-4:30 https://escience.washington.edu/data-science-career-fair/
- Handshake: UW employment platform https://careers.uw.edu/resources/handshake-access-details/
- Undergraduate Research Database https://www.washington.edu/undergradresearch/research-opportunities/find/
- Varanasi Summer Internship https://fish.uw.edu/2021/03/2021-varanasi-summer-internship-opportunity/
- Statistics Department employment site https://stat.uw.edu/news-resources/jobs
- American Statistical Association https://www.amstat.org/your-career/asa-jobweb

Ask Mee Ling:

Questions: “I am going to do research with a professor from another department. How can I sign up for research credits?”

Answer: “Congratulations of getting the research opportunity. If the professor is from another department you will need to talk with the professor to find out if he/she would like you to sign up research credits with their department. If the professor is not sure please give me a brief description of your research and I will let you know if it can be approved as STAT research credits.”
From the S.P.A Desk:

Things are finally starting to feel like normal again, and we can’t wait to see you all this academic year. We’re SPA, the Statistics and Probability Association at UW—your local RSO that’s a welcoming social space for folks with common interests. We have many events planned this year, both social and academic. There will be game nights, technical workshops, a t-shirt designing contest, joint social events with graduate students, and of course, the beloved SPA^2. That is, a spa-themed club meeting with SPA right before finals week. Our meetings are every Thursday from 5:30-6:30pm in PDL C-301, and we hope to see you there!

SPA’s main form of communication is through discord (join here) where we give updates, share resources, and just chat. Thanks to Michael Yung (Class of 2023) we also have a new website! And if you have any other questions, you can email your co-presidents Joia (joiaz@uw.edu) and Suh Young (atobdura@uw.edu).

We’re so excited for this year, and we hope that you will be a part of it. Kudos to all, and let’s get this year started!

Your SPA Co-Presidents,

Suh Young and Joia

Blurb from Joia:

Autumn is a cozy season, but for students it’s also a hectic one since it’s also application season. Applications for internships, REUs, scholarships, jobs, and graduate school to name a few. Here, we call upon UW undergraduates, graduate students, faculty, staff, and alumni to share their insights, experience, and advice for upcoming applications. Thank you so much to everyone who contributed a piece and to Professor Grove, who created Student’s T time and showed me the ways—this quarter’s newsletter wouldn’t be here without you all. And please let me know if you have any suggestions for future newsletters!

Internships

Michael Yung

An interview with statistics and informatics double major Michael Yung, class of 2023.

How did you find your internship?
Michael participated in the SPA DRP, a quarterly directed reading program that pairs an undergraduate student with a graduate student to learn an area of statistics not typically covered in coursework and do a research project, and his DRP mentor shared their experiences working at a company before coming to graduate school. Michael then searched for internships at the company online and applied for the data analyst internship. After a phone screening, Michael got an online interview. The interview was three hours long and included an introduction to the company, a behavioral interview, a technical interview, as well as a job shadowing section. The next day after the interview, your boy was hired.

How did you workshop your resume?
Michael made his resume in Figma based on a UI/UX designer template. After reformatting the template, Michael workshoped his resume through the Washington State Opportunity Scholarship (WSOS), a non-profit aimed to create career pathways.

How did you prepare for the interview?
The company itself actually prepared its interviewees for the interview in an information session. The company covered steps to take and tips for the behavioral and technical interviews. Additionally, Michael typed his answers to the behavioral questions and did mock interviews with his friends to practice telling stories and gain familiarity and confidence with the interview format.
What was the internship experience like?
After onboarding, there were several networking events, and training. Michael completed training videos and LinkedIn Learning Courses to build on his technical skills. Michael worked as a Data Analyst, querying data, analyzing the data, creating visualizations, gleaning insights, and presenting the work. The company operated in a hybrid format, so most people worked from home. Michael found the company culture to be open and he was able to virtually meet many people outside of his immediate team to learn about their position and careers.

Advice for students who’d like to do something similar?
Start early and start applying the summer before the summer you want to do an internship. That said, don’t worry about continuing to apply throughout the year. There are open applications well into spring and companies are always hiring. Also, research the company beforehand because this will allow you to not only prepare for the interview but also to see whether you’re interested in the company. And best of luck!

REUs

Rachel Ren

The summer after my sophomore year, I participated in the Polymath Jr REU hosted remotely by Williams College. My project group consisted of about 15-20 students and was led by a professor and graduate school mentor. We met as a group 2-3 times a week and I spent the rest of the time writing proofs independently, discussing ideas with other students, and making a presentation with a few other group members. The work itself was fairly theoretical and helped me feel more confident in proof-writing and understanding academic math papers. Additionally, this experience gave me the opportunity to work closely with a professor—something that can be challenging to find at such a big school like UW. In the end, our group’s talk was scheduled to present at the annual American Mathematical Society conference (which was unfortunately canceled due to COVID) and our professor and mentor are working towards turning our results into a paper where we will be listed as co-authors.

This past summer, I had the pleasure of interning at NOAA as a Statistical Modeling intern. This internship was not exactly a traditional internship in the sense that it was more research-oriented. My project revolved around answering a research question and I worked closely with one mentor. The work consisted mostly of reading R documentation, writing R code, and running models. As mundane as that may sound, I found it to be extremely exciting because I was able to apply some of the machine learning concepts I learned in STAT 435 to real-world environmental applications, an application area of statistics I am particularly interested in. Additionally, I was able to get a sense of the workplace culture at NOAA by working in the office, interacting with employees, and attending team meetings.

Looking back, I thoroughly enjoyed both my REU and internship experiences. Participating in both programs helped me confirm my postgrad academic and career goals. Each program enabled me to foster different skill sets and provided distinct benefits. The REU program helped solidify my theoretical background in probability theory and proof-writing in preparation for graduate school, while the internship program helped me strengthen my R skills and practice workplace communication.

Joia Zhang

Research Experience for Undergraduates (REUs) are summer programs funded by the NSF, where universities across the United States host undergraduate students to conduct research projects. A few goals of REUs are to promote undergraduate research, serve as a litmus test for whether students want to do research, and advance students in their career. Citizens and permanent residents are eligible and REUs typically include a stipend and possibly conference travel funds. REUs are also an opportunity to meet new people in your field and experience the culture at a different institution. Many programs that were virtual due to the pandemic are now in person again.

After participating in the aforementioned SPA-DRP, I became interested in research and wanted pursue it full-time over the summer. I looked for programs on the NSF database of REU
programs listed by field, which Professor Grove provided above. That summer, I had the opportunity to participate in the REU at the department of mathematics and statistics at University of North Carolina at Greensboro, which I wrote about during the Autumn 2021 Student’s T time newsletter. I researched randomized response technique models with my two mentors and following the program, we were able to publish our work and I got the chance to present the research at conferences throughout the year. This REU was virtual due to the pandemic, but that didn’t prevent the summer from being social. Using travel funds from the REU as well as the UW Undergraduate Conference Travel award, I was actually able to meet everyone in person for the first time at the AISC 2022 conference organized by one of my REU mentors. The next summer, I wanted to do another REU, so I flew from Seattle to New Haven for the 2022 summer undergraduate math research at Yale (SUMRY) program. Our group worked on directed-graph based inference in machine learning and our manuscript is in progress. REUs exposed me to research and while I’m continuing to learn about the research process, I’ve learned that research can be both challenging and very rewarding.

Each time I applied for REUs, I began with the above database that allows you to download the information about each program in a spreadsheet. For the programs I planned to apply to, I noted the application deadlines and kept a checklist of the application steps: contact references, write sop, fill out application form (typically with an attached unofficial transcript and resume), and whether they asked for an interview. The earliest deadline I’ve seen is late January. Most deadlines are before the end of February, but there are also deadlines as late as mid-April. I hope that this information can be helpful to those interested in REUs and if you have any questions, as always, feel free to email me at joiaz@uw.edu.

Scholarships

Alan Min

The Goldwater scholarship is a national undergraduate scholarship awarded to at most 4 students from a university each year, and is eligible to second and third year students in college. Its intention is to recognize talented students in science, math, and engineering. Full eligibility criteria can be found at https://new.expo.uw.edu/expo/scholarships/goldwater. The scholarship provides up to $7500 per year for the remaining time that the student is in college. Additionally, the Goldwater scholarship is nationally recognized and is a good addition to any resume or application.

To apply to the scholarship, students must first be nominated by their university. In other words, there is a first application to the University of Washington that needs to be submitted, and there will be an application that will be submitted to the Goldwater foundation afterwards. The deadline for submitting an application to the UW is November 8. The UW has a committee of faculty who will read through all of the applications and select students who will go forward and submit an application to the Goldwater foundation.

The Goldwater application will include both a research essay and short answer questions. Often, the essay goes over background, methods, and early results of a research project that students have worked on prior to applying. The essay is a little different from a typical college essay because it can include figures, technical details, and citations. It’s almost like a small research article about a project. The goal of writing this essay is to demonstrate knowledge and skill in scientific writing as well as innovation in the field.

In addition to the research essay, the short answer questions may ask what the applicant plans to work on in the future. These questions ask the applicant to reflect on potential ways that they can make an impact on society. Successful answers to these questions are often specific about plans and demonstrate that the applicant has thought about potential areas of research that they want to work on.

In general, writing these essays can be hard. It can be hard to figure out which experiences to write about and also hard to express these experiences in the best way possible. When I wrote my applications, there were staff that worked with me from the office of scholarships. We went back and forth on my drafts, ultimately going through seven iterations of revisions before submission. My general advice for writing these applications is to (1) brainstorm possible options to write about...
before reflecting (2) write a rough outline of what content will be in the application (3) spend some time writing down thoughts without worrying too much about length requirements (4) revise and ask for feedback. It is also important to start early so that there is enough time to get feedback and revise the drafts. For my essays, I know that the early drafts and the later drafts were totally different, so planning for time to make all of the changes was important for me!

Good luck!

Jobs

Lukas Naehrig

I found the job search to be significantly more challenging than I had first anticipated. By the time I had my first interview, I had applied to nearly 50 jobs, which became more frustrating every single day. Most of the job offerings I submitted my resume to were found online through job searching engines and were usually titled “Data Scientist” or “Data Analyst”. This was a process I regret spending so much time on as it led me pretty much nowhere. The two jobs that I ended up interviewing for, and received offers from, I had discovered through a chain of personal connections and had completely different titles such as “Financial Analyst” and “Data Management Consultant”. I learned that relying on connections and acquaintances in the work force is much more effective than randomly applying online to competitive “Data Scientist” roles. The job offer that I accepted is that Financial Analyst role at Boeing, a company that I am really excited about working for. I knew one person who works at Boeing and asked if she knew any individuals who are working in my area of expertise. This led me to meeting many people within the company that I set up meetings and phone calls with to learn about their roles and any job offerings they may have or know of. I highly recommend focusing on building a network to help you with your job search as opposed to blindly applying online, as this will give you access to opportunities you won’t see on job searching engines and it will likely be for someone who cares about their employees. In terms of the interview process, I went through two separate rounds each led by a panel of 3 or 4 potential colleagues. The first round contained simple scenario-based questions which ended up feeling more like a friendly conversation with the panel than an actual interview. The second round required me to create a presentation based on a case study I was given. I spend the whole week preparing the presentation and making sure it looks professional. After giving this 45-minute presentation, I felt like I knew what my job was about and felt ready to start work. Luckily, the job offer was sent to me, and despite another company offering more money, I made a decision with my heart and took the job I felt more passionate about. This brings me to my last point: I highly recommend being patient with the process and spending time looking at companies that do work you are passionate about. Sure, it might sound appealing to work for Amazon, Microsoft, and Facebook given their high salaries. However, I am excited about working every morning because I get to contribute my efforts to a company that is incredibly influential in the world and creates products I find interesting.

Eli Grossman

I started my job search very early, in August before senior year. In hindsight, this was not completely necessary since all of my friends who started later were also able to find jobs before graduation. However, since I started so early, I had my offer signed in October giving me the rest of the school year to relax, hang out with friends, and only have to focus on classes. It’s hard to watch your friends struggle through the job application grind while you’ve been finished for months but it was really a fun and relaxing year for me.

By far the method that gave me the most interviews per ‘application’ were referrals. Every referral I got immediately pushed me to the first interview while over 90% of my applications on LinkedIn/Indeed/Handshake resulted in nothing, not even an automated rejection! Yes, getting a referral feels hard. At the beginning of my search I completely brushed off asking for referrals since I didn’t immediately have anybody to ask. Eventually, I started reaching out to relatives who had
connections and even someone as distant as my mom’s friend who knows the data science recruiter for their company. Even if it seems awkward or difficult, it seriously can not hurt to ask. A lot of people know that finding a job out of college is hard and are more happy to help. Even if they say no, you’re only pushed back to where you started before you asked, nothing lost.

Not to be contradictory, but the job I eventually took was actually found on Handshake! For technical interview tips for data science jobs, I would definitely brush up on general concepts covered in STAT 34x (I had interviews ask me to describe a t-test and explain what a p-value is) and do A LOT of SQL practice problems. However, for general behavioral interviews, it is really difficult to give tips, you need to have real practice before it starts to click. I can very clearly remember a few of my interviews that went very poorly that I had to convince myself were just practice. If you don’t do well in an interview, remember that there will always be another opportunity. The biggest thing besides practice that helped me succeed in interviews was just having confidence in myself and knowing that I am qualified enough to get an entry level job. After all, we all go to a world class university, and are in a highly selective, difficult, and in-demand program! Going into an interview with this confidence helped me relax and think more clearly so I could show off my skills. Having anxiety with interviews is completely normal, there was never an interview where I wasn’t completely panicking beforehand. But in the moment, just relax, be yourself, and remember that you truly deserve a job. It may not work out with this company but with time, you will find a recruiter who sees how smart you really are and gives you the chance you deserve.

Graduate School

Professor Adrian Dobra

The SOP is arguably the most important part of your graduate school application. When you decide to write your SOP, you need to think about the person who will be assessing the relevance of your file for the school you are applying to. This person (faculty or staff) most likely has hundreds of other similar files to read, and this task is only one of the many tasks they need to handle. They have a very limited time to figure out why your file should stand out from the rest. You will provide a lot of information about yourself: your research statement, your sample writings, your degrees, your grades, your achievements, your prizes and distinctions, your internships, your extracurricular activities, your hobbies. How will the reader of your file put all this information together into a coherent story? This is where your SOP comes in. You need to see your SOP as your chance to speak directly to the department you plan to join and explain why you will be among their most successful alumni in the future.

The SOP should summarize, in a concise manner, your most important professional achievements, your drive for research in your chosen field of study, your career trajectory until this point and into the future. The SOP should present you as a focused, passionate individual with great ideas, impressive energy and significant desire to succeed. Think it this way: you seek acceptance in a competitive graduate program. The department you plan to join needs sufficient evidence that you will successfully complete your graduate degree and will move on from graduate school into a job in academia or industry. The department you apply to makes a big investment in each new cohort of graduate students. It takes a lot of effort to bring new graduate students on campus, train them, guide them, start them in their research, help them to publish their first papers and complete their theses. Departments always want every new graduate student they bring in to succeed. There is absolutely no reason to bring a new graduate student in just to see them unhappy with their new department later on. Your research statement is the place where you can offer details about your ongoing work, publications, research groups and relevant research related activities. Your SOP should not duplicate the information you provide in your research.
statement. Instead, your SOP should complement your research statement by explaining, among other things, how your current research interests will make you a good match for the department you are applying to. Unless your application package requires a separate document, your SOP should also talk about how your current and future professional activities will meaningfully advance diversity, equity and inclusion. You can talk about your experience and background that has made you aware of the challenges faced by underrepresented or marginalized groups in your chosen scientific field.

Take sufficient time to carefully write your SOP. It is always a good idea to tailor your SOP for each department you are applying to. In the last one or two paragraphs you might want to mention several courses that attract you in that department, specific faculty that could be a good match for your research interests and explain why you want to join that department as opposed to other competing departments. Through your SOP you can make a case for yourselves that, if accepted, you will join the department you target and that you are very likely to become one of their noteworthy graduate alumni.

Seth Temple

NDSEG and NSFGRFP fellowships in my second year here at UW. The goals of these fellowships are to fund scientists in their post-bachelors education to explore additional mentoring, training, and research opportunities. In my case, I receive stipends that cover my tuition and living expenses so I can focus more on my research as opposed to taking on teaching assistantships. This has allowed me the opportunity to continue collaborations with Los Alamos National Laboratory and the UW Genetic Analysis Center while juggling my dissertation research, both collaborations in science I care about (emerging infectious pathogens and neurodegenerative diseases).

The purpose of the SOP changes as you develop in your career. In your undergraduate admissions essays, you focus more so on your dreams. In your graduate admissions essays, you highlight your potential and provide evidence based on your stellar past experiences. In your fellowship essays, you still share your passions and skillsets, but you also lay out a gameplan for a specific research agenda and you emphasize why you can achieve that research agenda given your expertise and your access to institutional resources. Between NDSEG and NSFGRFP, I treated NDSEG more of as a job or grant application versus NSFGRFP more of as PhD admissions. Importantly, the NDSEG fellowship comes with less flexibility, in that I must petition to change projects or research supervisors. I may never know why, but I guess the DoD cares about statistical methods for evolutionary processes. :)

I hope you all find access to my fellowship applications materials useful.

SOP: statement of purpose
DoD: Department of Defense
NDSEG: National Defense Science Engineering Graduate (https://ndseg.org/)
NSFGRFP: National Science Foundation Graduate Research Fellowship Program (https://www.nsfgrfp.org/)
Access to Seth’s application materials: https://drive.google.com/drive/folders/1gc4b6nmj2dhZcHMBF2NFiAidt8Z6d6si?usp=sharing

I am a senior Statistics PhD student and the recipient of a DoD NDSEG Fellowship in 2021. I applied for the