**My Data Science Job Search**

**What worked, what didn’t, and how to have fun!**

After a decade-long journey of higher education, internships, and jobs that led me through systems biology, clean energy, and electron microscopy, I finally arrived at my career niche: a data scientist who is expert in the renewable energy sector. You may be like me, someone who almost accidentally ended up here, without formal education (although I did go back to school after working for a few years as a data scientist). I had a fascinating and insightful experience looking for a data science job after graduating this past summer, and I thought I’d share a few things I tried, with the hope that you can glean something from it to help you. This is by no means a “silver bullet” solution to land you your dream job, but just some thoughts on my experience in a growing and competitive industry.

**Find Your Niche**

There were two “a-ha!” moments in my job search. The first moment fortunately happened within a week. Data science is such a versatile tool, that you can almost find any type of company that will be looking to hire someone. But do you want to work for a big tech company? Is your passion in marketing instead? Or maybe you just love engineering problem-solving like I do. Sure, I applied to several jobs that just had a “data science” job title, but many of them early on were with companies that I had no interest in. My background didn’t align, and my passions didn’t align, and they could tell. I didn’t get a single call-back from any of them. The advice here is to decide what you want to do with your data science career, find your passion, and apply for those kinds of jobs.

Near the end of the search, job offers started coming in, but the most exciting one was an employer that told me from the very first interview “out of the hundreds of applicants we got for this position, you are the one we are most excited about!” It’s not because I had the most amazing resume, but because it was in a really niche industry (semiconductor equipment fabrication) that I was legitimately fascinated by.

**Resume Tips**

The second “a-ha” moment happened a few weeks in, when I was applying to lots of jobs but not getting many responses. I revamped my resume, and suddenly I was getting twice as many interviews in a week while applying for fewer jobs. Here are some specific things that I did:

* I created a professional website, where I put a career statement, my full CV, and some links to projects and articles I had worked on and written. You can see it [here](https://nrlewis929.wixsite.com/nicholas-randy-lewis).
* On my resume, I included links at the top to my professional website, LinkedIn profile, and Github.
* Keyword revamp! Hey, your employers for a machine learning/data science position are most likely using ML to sort through resumes. What’s the best way to let them know you’re competent in ML? Recognize that they’re likely doing keyword searches, and flood your resume with those special keywords like “data science,” “github,” “AWS,” or whatever other skills you have.
* Trim the fat. I always kept a little section of the resume called “Additional Skills and Interests” where I mentioned a few hobbies. While this is awesome for the occasional interview where I talk to a fellow marathon runner or musician, it just takes up valuable space and doesn’t contribute anything to the keyword searches. So take out the fluff. If you’re hired, you’ll get plenty of time to connect over hobbies. If at all possible, keep your resume streamlined.

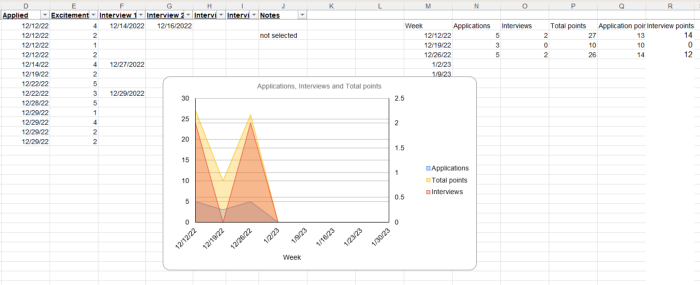
I’m not sure which one of these changes suddenly caught the eye of so many employers. Maybe someday when I’m on the interviewing side, I’ll let you know. But this resume revamp changed 50 job applications and 2–3 interviews in an average week to 20–30 applications and 5–8 interviews.

**Tracking Your Progress**

I wouldn’t have realized these “a-ha” moments without tracking my applications and interviews. Everyone has their own system; I’ll share mine, but it’s just important for you to do something that works for you.

Before I share details of my tracking system, I want to tell a quick experience from my job search. For the first several weeks of my job search, I was in school and not seriously looking. I applied for what I thought was tons of jobs, and was frustrated that I didn’t get a single interview. Well, I hadn’t been tracking my applications, and when I started, it turns out I had applied to fewer than 10 companies! Now, some of you only need to apply to 10 and you’ll get a job, but it really is just a numbers game. By tracking your applications, you can see what’s working and what’s not, and give yourself some reality if you think you’re doing better or worse than you actually are.

I personally tracked everything in an Excel spreadsheet. I had a column for the company name, position title, and where I’d found the posting (LinkedIn, Indeed, company website, etc.). I had a column for the date that I applied, 5 columns for dates that I interviewed (the most interviews I had to go through was 6), and then an “excitement rating” column and “notes” column. So when I’d apply to a job, I’d record the basic info so I could track it down if they contacted me for an interview, give it an “excitement rating” on a scale of 1–5, and write the date I applied. If I had interviews, I would record the dates and any notes on them. Then I wrote some Excel formulas to track how many jobs I applied for, how excited I was for those jobs on average, see how many jobs on average led to an interview, and make plots. If you’re interested in a template, you can download it [here](https://docs.google.com/spreadsheets/d/1D5-x-zldb2yZ396ftTAQOq8IA6ymSqPT/edit?usp=sharing&ouid=107614753179186368738&rtpof=true&sd=true).



Screenshot of sample job application spreadsheet. Spreadsheet and screenshot by author.

Finally, I put in place a point system. Rather than saying “I will apply for 20 jobs this week,” I made a goal to earn X points. For each application I would fill out, I would get points corresponding to the excitement rating (this incentivizes applying for companies you’re more interested in, which tend to be more responsive), and then 6 points for a 1st interview, 8 points for a 2nd interview, and 10 points for any interview after that. This system helped me to keep applying for jobs while interviewing; if I had lots of interviews, I’d be at peace with the fact that I didn’t have as many applications submitted that week, while if I didn’t have many interviews, I could submit lots of applications. This system took a few iterations to develop, so go ahead and continue to modify it as needed!

**Learn Marketable Skills**

One thing that employers liked to hear while I was job searching was that I was continuing to learn skills. For example, I had used cloud computing resources before, but not AWS specifically. Well, I happen to live in Seattle and saw some ads on the metro for free courses available at the Seattle AWS Skills Center, so I signed up for some. There’s lots of material online, and you can even work on code snippets or projects to post to your Github to show employers. The point of this is to acknowledge that, if you’re only applying to jobs all day, you’ll probably get burned out. Shake things up by working on productive projects and skills, and not only will you find more satisfaction and variety while job searching, but you’ll also gain skills to stand out. It’s also a good idea to practice some coding questions. My personal experience is that about a quarter of my interviews had a coding component, but that’s probably unique because I was looking more for jobs that valued the chemical engineering side rather than the coding side.

**The “Dress to Impress” Question**

The likelihood is that, if you’re in data science or machine learning, you’re applying for remote jobs. Your interviews will all be remote. You’ll probably read lots of posts saying how you should still dress to impress. That’s probably sound advice, but my experience is it didn’t matter. I had some interviews where I wore a button up shirt and tie, and others where I just wore a nice polo. You obviously don’t want to look like a slob, but I got job offers both from companies where I dressed up and companies where I just wore a polo.

**Gratitude Journal**

Everyone gets it: a job search is hard. If you’re reading this, you’re probably one of the many who didn’t have everything handed to them on a silver platter. Your job search has probably been frustrating. I was certainly there at many times in my job search.

A few weeks in, I decided to write down one thing I was grateful for each day. Sometimes it was a good interview, sometimes it was a new job posting that I was excited for, and sometimes it was something tongue-in-cheek like “I’m grateful this one company didn’t give me an offer because now I realize it, it would have been a bad fit!” Some days may be super hard to find something to be grateful for, but there will always be something. Doing this helped me keep going through the long process and keep a semblance of sanity, and if there’s one thing you take from this article, I hope this is it.

**Use Your Connections!**

I’ll be the first to admit that I’m not the best one to tell you how to do this. But I’ll use the example of a good friend and classmate from my undergraduate days. He had graduated and was having a hard time finding a job in engineering for nearly a year. Well, he decided to cold call the President of AIChE (American Institute of Chemical Engineering) and tell him his story. He was able to not only create a connection, but also use this connection to lead to his first job, and has had a great career since then.

So use your professors, use your friends. It may be scary and you may feel like you’re imposing on their time, but I’m sure you’ll find that they’re not only willing, but eager to help you find a job! It may also help to look for local jobs — everyone across the country and maybe even around the world can apply for any remote position, so it may be hard to stand out; if the company is looking for someone local to be in office, the competition pool is much, much smaller.

That’s all I have, and it’s worked for me. We’re all different, with different backgrounds and objectives for our career, so maybe this is useful, maybe it’s not. If it is, I’d love to connect on [LinkedIn](https://www.linkedin.com/in/nicholas-lewis-0366146b/). As always, feel free to follow me on [Towards Data Science](https://nrlewis929.medium.com/) to see my regular posts on data science case studies.