
Matthew Mike

The Data Portfolio Guidebook

Display your skills

Stand out

Get hired

TABLE OF CONTENTS

THE PORTFOLIO GUIDEBOOK
FOR DATA ANALYSTS

I. INTRODUCTION	3
II. CREATE A LANDING PAGE	6
III. BUILD A PORTFOLIO	8
IV. OPTIMIZE YOUR LINKEDIN	15
V. APPLY TO JOBS	20
VI. INTERVIEW PREP	24
VII. CONCLUSION	26

INTRODUCTION

You've made the decision to pursue a career in data, learned the skills needed for the job and began applying, but you're still not getting a job. Maybe you're not even getting an interview! You've spent hours learning Excel, BI tools, SQL, maybe even Python and you know you're qualified. If only you could show them how skilled you are, you know they would hire you!

But there's one thing you're missing, a PORTFOLIO.

A portfolio is essential to landing a career in data, especially if you're brand new to the field. The majority of aspiring analysts are applying to jobs without a way to showcase their ability to a potential employer. I know, because that was me for a while too.

I thought that having a few certificates was enough to prove to a recruiter that I knew what I was doing. Well, here's news for you: the recruiter doesn't care how many certifications you have!

Certifications are great and are likewise incredibly useful for entering into the data job field, but without projects to demonstrate ability, they're close to meaningless.

If you had to choose whether to have only certifications or only projects to show to a recruiter and employer, projects would be the one to keep. You should have both, but do you understand my point? The reason for a portfolio is to prove the skills you say you have.



With a portfolio, your chances of getting an interview and getting hired dramatically increase. Projects often make all the difference between being overlooked and being chosen or even being considered among the potentially hundreds of other applicants.

In this brief ebook, I hope to explain in very practical fashion how to:

- Create a simple landing page to direct recruiters to
- Build a portfolio that you can link to your landing page
- Optimize your LinkedIn page in a way that stands out
- Begin effectively applying to jobs
- Prepare for interviews practically and mentally

About Me

In relation to data, I come from a very non-traditional background. My Bachelor's degree is in English, and I became a charter school teacher right out of college, eventually this led me to an administrative position at the school I worked for. After a few years in education, I tried B2B sales for a short period and then made my way into a corporate billing and collections job. Not exactly the background you'd expect for a data analyst!

When I decided to pursue a career as a data analyst, I began learning the necessary skills through courses and following some content creators on LinkedIn who are in the field. After months of applying myself to online learning and working on personal projects to hone my skills, I eventually landed a job in data. I am completely self-taught and am proof that you don't need a degree in data to move into the field. It certainly helps, but if you're coming from a non-traditional background, don't worry – you can still absolutely make it work.

There are more online resources available now than there ever have been before. As an up-and-coming field that is growing in popularity, you can train for data jobs completely online without earning a formal education. This makes jobs in data EVEN more attractive.

Despite the abundance of online resources, simply taking courses and providing certifications to recruiters is not enough. While a few courses may be necessary for gaining skills, a portfolio is necessary for practicing skills and demonstrating ability. If you really want to stand out and get a job in data, you'll need to spend time working on projects and creating a portfolio. Not only will this reinforce what you learn but providing real examples to recruiters and hiring managers will prove to them that you have a real working knowledge of the tools you claim to know.

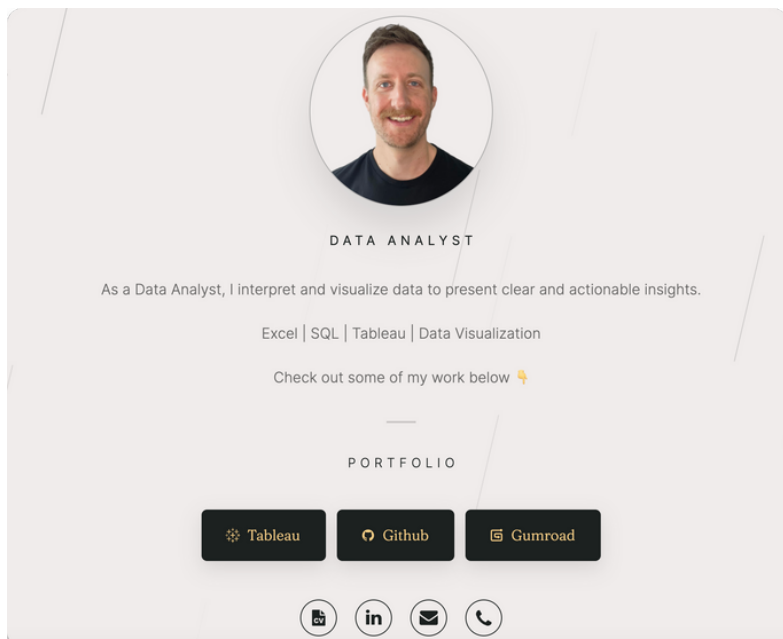
Without further ado – let's begin!

CREATE A LANDING PAGE

To host your portfolio all in one place, you need a landing page. However, you don't just need a landing page, you need a landing page that looks simple, clean, and modern. Additionally, your landing page needs to demonstrate and show off the practical knowledge of the skills you claim to have. It's not enough to explain that you have some fancy certifications. You need to put those certifications to work and prove to everyone that you have the know-how. Your landing page is the airport that hiring managers will launch from to your respective project websites.

There are many options to choose from, but I personally use **Carrd.co**. First off, they have a FREE version that will be more than enough to get you started with a simple landing page for your portfolio. They also have a ton of templates to choose from to get your started, and they make customization very easy. Not to mention, they have an exceptionally modern feel and are very user friendly.

I've seen many other tools out there and have made websites for businesses in the past. In my experience, most other services are either too clunky or have a paywall. Carrd.co is the best tool I've found for a simple yet elegant website while also being free. Below is a screenshot of my landing page at the time of writing this eBook.



Mine is nothing too fancy, but it is simple, easy to look at and has everything I need. Notice the links to my actual portfolios. That is what makes this a “landing page.” It’s the home base for everything else I want people to see. As you build more projects across different platforms, you can continue to add them to your landing page. Easy.

With that said, let’s talk a bit more about the portfolios and where/how to build them.

BUILD A PORTFOLIO

Thinking Like a Data Analyst

A quick note about thinking like an analyst before we dive into data sets and portfolio building.

The temptation early on is to be a "Dashboard Monkey." In other words, just spitting out cool dashboards without trying to give any specific insights or address any particular goals. I was 100% guilty of this when starting out. I see this all the time from people online. Either providing WAY too much detail, or providing very random detail that doesn't actually tell a story.

When approaching a project, think about the end goal from the very start. If you're not following a particular prompt, create one for yourself. If you're using Tableau's "Superstore Sales" data set, a sample prompt can be as simple as "What was the highest selling category and sub-category year-over-year." Not too complicated, but the point is it gives you DIRECTION. That way, you're not just putting together a whole bunch of random charts that don't actually say anything.

Keep it simple and keep it targeted. Don't overwhelm your audience, but make sure you're telling a story. Remember that in the real world, the dashboards you create are often viewed by people who aren't data analysts. So you'll want to keep everything as smooth and easy to comprehend as possible while at the same time providing actionable insights.

Data Sets

As a pre-requisite to building a project, you'll need a data set to work with. Here are a few that I recommend

- **Kaggle.com** – A very well-known resource for data sets. They have data on almost every topic from CO2 emissions to trending YouTube videos. They also host competitions regularly; another great way to practice for those interested. Here's the link:
<https://www.kaggle.com/datasets>
- **Data.gov** – A great place to find data sets for things like climate, energy, agriculture, and local government.
- **Buzzfeed's GitHub Page** – BuzzFeed has a repository that houses data sets covering a wide spread of social-political topics as well as some fun ones like "Simulated Lottery Odds." Here's the link:
<https://github.com/BuzzFeedNews/everything>
- **Maven Analytics** – They have a "Data Playground" with lots of interesting topics such as "Space Missions" and "Unicorn Companies." Here's the link: <https://www.mavenanalytics.io/data-playground>
- **Tableau Public** – If you're using Tableau as your dash boarding tool of choice, Tableau Public has a Resources page with Sample Data. Some of their data sets like "Superstore Sales" and "Airbnb Listings in New York City" have become very popular when it comes to visualization training and are used in many courses.
- **The Humanitarian Data Exchange** – As the name suggests, their website offers lots of great data sets on humanitarian topics like "Food Insecurity Country Data." Here's the link:
<https://data.humdata.org/dataset>

Portfolio Building

There are a few ways to go about showcasing a portfolio and it really depends on what tools you're trying to display, but the two most common places for this when it comes to data visualization are **GitHub** and **Tableau Public**. If you're trying to show off a very specific project you've created such as a website, it is best to link this directly to your landing page.

GitHub

Honestly, I did not know GitHub even existed prior to beginning my journey into data, but it is a staple in this field. It is an incredible repository hosting service where you can exhibit all sorts of projects. For our purposes, it is an especially helpful place to host projects you've created in Excel, Python and SQL. Just upload them to your repository!

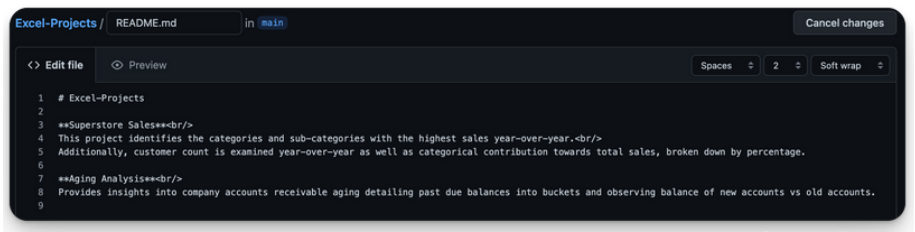


Utilizing GitHub takes a little bit of practice, but you will essentially just create a repository, give it a name, add a README and upload your file.

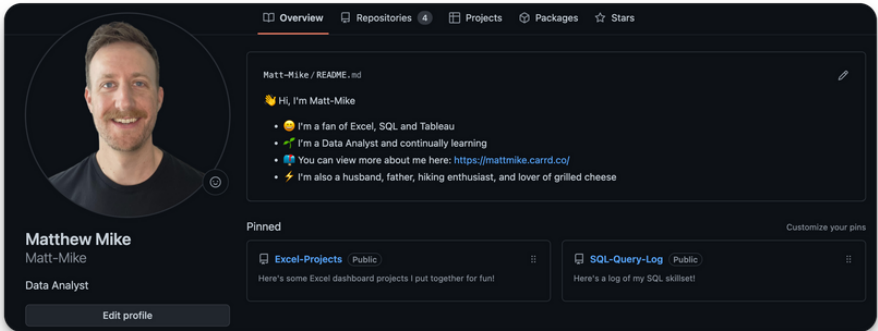
Here are the **basic Github functions** you need to know for editing text in a README:

- # - This will make text into a title/header format with big letters and bold font
- **sample_text** - Wrapping text in asterisks will give it a bold font. Good for subheadings
-
 - Creates a line break

Those 3 functions are all you really need to know in order to create a decent looking README. Here's an example of my "Excel-Projects" repository in editing mode and as a finished result.



Below is also an example of my personal GitHub page. It is nothing too complicated but notice how I've specifically "branded" myself as a Data Analyst and show a little bit of my personality in the process. I did this even before I got my first job in data. You want to begin calling yourself a Data Analyst and acting as one even before you are officially working as one.



To create the little bio at the top, simply create a repository and give it the same name as your username. This makes it your "personal repository." You can then create a README for it and create the bio accordingly. This adds a little bit of life to your page, but also allows you to say anything you want to someone who visits your page. Have fun with it!

Once you have a few things added to your GitHub, you can link your profile to your landing page. Carrd makes this easy by simply adding the hyperlink to a button. They even have the GitHub logo available to use as your button from their list of icons. This adds an additional layer of professionalism to the overall look of your landing page.

Showcasing SQL knowledge on GitHub

Since SQL is a query language and used more for navigating/modifying databases, it can be difficult to display what you know outside of a live setting. However, I recommend creating a repository on your GitHub page that details all the queries you know how to use. You can just type out the simple syntax or create an example syntax in the README section of the repository.

Another idea is to create a brief pdf booklet with images showing how you walked through a particular problem utilizing SQL. Explain the prompt, and show what queries you entered to obtain the desired result. I've been seeing more and more of this and it's a fantastic way to visualize SQL knowledge.

If you're interviewing for a role that requires a lot of SQL, they will likely still have you show them your knowledge in a skills interview. However, this is a good way to prove to recruiters and hiring managers that you have the know-how required to use SQL, thereby increasing your odds of getting your foot in the door for an interview. In general, I learned that once you're on the phone with a recruiter, you can walk them through your portfolio and resume during the conversation.



Tableau Public

Tableau is an exceptionally popular tool for data visualization. Of particular interest to us is that you can host your projects on the Tableau Public domain. This becomes incredibly useful for showcasing skills and linking projects to your landing page. You can create a Viz directly from the Tableau Public website, or if you're using the desktop app, you can simply save the visualization to Tableau Public when you're done. You can always go back and make edits to your already existing projects on Tableau Public as well. If you haven't taken the time to learn Tableau, then I highly recommend it. You can find some great courses on Udemy.

I'd recommend having at least a few dashboards completed and uploaded on your Tableau Public profile before adding the link to your landing page. Once you have a few visualizations completed, you'll link your Tableau Public page to your website, like I explained with the GitHub example above. Carrd also has the Tableau logo available to use for your hyperlinked button – a very nice added touch to your website.

Additional Projects

If you have any other projects such as a website you created, app or even a blog, I'd just link this directly to your landing page.

Remember, your landing page is the home base for ANY projects you are trying to showcase. You can also reference these on the Featured section of your LinkedIn profile, but I'll explain that in a little more detail later. Anything you can do to increase exposure of your projects is worth doing!

OPTIMIZE YOUR LINKEDIN

LinkedIn is absolutely my favorite platform when it comes to applying to jobs and networking. In many ways it's like another landing page. It's not like any other tool out there in terms of its reach. Of course, if you have a particular company you are targeting then by all means apply through their website directly. However, if you're wanting to explore what's out there, then I highly recommend LinkedIn. I have found it to be the cleanest tool for exploring and applying while also having one of the best user experiences. In addition, the capacity for connection on LinkedIn is an absolute game changer since it doubles as a social media platform. This makes it quite unique when compared to platforms like Indeed and makes it easier to reach out directly to recruiters.

With that said, if you're looking to apply to startups then I recommend trying **Angel List (angel.co)**. It's a hub for applying to jobs within the startup space. Additionally, you can find plenty of information on the companies you're applying to within the platform itself, including which round of funding they're on and who the company leaders are. The only drawback is that since it is exclusive to startup companies, the results can be very limited.

Alright, now let's dive deeper into LinkedIn!

There are a few areas to consider when optimizing your LinkedIn page. I consider these to be the most important:

- Profile picture and Banner
- Headline
- Bio
- Featured section
- Work experience
- Skills

Let's take them one at a time!

Profile Pic and Banner

Since your picture is often the first thing someone see's when they look at your page, it's a good idea to put in a little bit of effort here. No need for a professional headshot with professional editing. Rather, there are a few simple FREE online tools you can utilize to help your picture stand out.



First, I recommend taking a quality picture with good lighting. Feel free to keep it casual, but make sure it looks clean and intentional. If the picture has a nice background and is good quality, then you can stop here. If you'd like to take it a step further and remove the background to customize it with color or a blank slate, then I recommend **remove.bg**. You simply upload your photo, run it through the tool and it will remove the background on your photo. From there you can download the photo. Be careful though as you only have a limited number of download before they require you to pay.

Once you have your new photo with the background removed, we can use **Canva.com** to customize a unique background. Simply create a new visual and upload the photo. You can then make the background transparent and change the color of the background. Crop the photo to fit the view of the page and then you're good to go. You can then download the newly created profile picture and replace it as your new LinkedIn photo.

You can create your banner on Canva as well! They have plenty of great templates to choose from. Once you find one you like, customize it however you want and download it just like you did for your profile picture.

Headline

Your profile headline is a great way to briefly share what you do. If you're trying to make your profile standout, then it's good to avoid the generic title that LinkedIn spits out for you, example: "Customer Support Specialist at ABC Company."



Instead, I recommend putting your aspiring role, technical skills, and industry skills. I would also separate keywords with the “pipe” symbol (looks like this: |) as it provides a very clean look. Here’s an example headline that is effective and to the point: “Data Analyst | Excel | SQL | Tableau | Data Visualization.” Add any other technical skills to give a brief overview of your capabilities. A solid picture and a strong headline will give you’re profile a powerful first impression!

You can check out an example of all this on my LinkedIn page:

<https://www.linkedin.com/in/matthewmike/>

Bio

This part will require a little bit more time and attention, but your bio is your opportunity to insert some personality into your profile while also giving an overview of who you are. There is a lot of room for creativity here and many different routes you can take in crafting your bio so make it your own. You can share more of your personal story, list qualifications and accomplishments or just give a general overview of your background. The sky is really the limit here!

Featured Section

First, I recommend taking a quality picture with good lighting. You might not have too much to put here and if so, that's ok! However, this is a good place to showcase any cool projects you've created or accolades you've received. You can even pin one of your posts or a link to a website like your Github page for example. At the very least, I would link at least one of your projects here so that anyone looking at your profile can get a quick snapshot of work you've done. If you've spent time creating a portfolio as we've been discussing throughout the course of this ebook, then you should have something to place here.

Work Experience

I'll go into depth a little further in the "Resume Tips" section of the book, but this biggest thing to keep in mind is to frame your experience through the lens of a data analyst. Write 2-3 bullet points per position, use action words and numbers wherever possible (numbers stand out). Try to speak in terms of what you accomplished, not just your duties.

Skills

These are typically found at the bottom of your profile. ONLY enter skills that are relevant to data analysis. Data recruiters won't care if you have "Drink Making" in your skillset. A quick hack is to look at keywords in job postings and put them in this section. Having relevant skills here will help the algorithm when recommending jobs or attracting recruiters. You can list up to 50 skills, so max it out.

Overall, a solid LinkedIn profile can only help you in your job search!

APPLY TO JOBS

This topic easily has enough information for its own book and there are certainly many other resources out there, but I wanted to share what I did to land a job in data as well as some overall tips for applying to jobs.

Assuming at this point that you've created a portfolio of personal projects, have set up your landing page to host these projects, and have fully optimized your LinkedIn page, it's now time to begin the moment you've been waiting for: applying to jobs! Data jobs can be incredibly competitive, so all the previously mentioned steps will do a lot to help set you apart.

I'm just going to explain the personal strategy I followed along with some advice.



Resume Tips

First off, be sure to include information and links to your portfolio in your resume as well. For resume building, app.enhancv.com is one of the best resume tools out there and it is free. They have beautiful templates that are very easily customizable.

The main point is to make your portfolio links or project descriptions very visible in your resume. Keep in mind that recruiters take an average of 10 seconds to view your resume and typically only view the top half. Again, your portfolio is in many ways what will set you apart from other applicants, so be sure to highlight your efforts!

When it comes to explaining your work history and accomplishments, I recommend these pointers:

- 2-3 bullet points per position
- Bold key words (but don't overuse this)
- Use action words, especially at the start of a sentence
- Use Google's X-Y-Z formula
 - accomplished [X] as measured by [Y], by doing [Z]
- Use numbers wherever possible – they're eye catching and quantify your goals

Putting it all together, here's an example bullet point. Let's say you're a Customer Resolution Supervisor:

"Implemented new scorecard system increasing call resolution volume by **30%** through KPI monitoring with **Excel** dashboards."

Notice I highlighted the use of Excel – do that for all your data skills!

The Application Process

For me, when it came to applying to jobs, I only applied to jobs within a week of them being posted. In most cases I only applied to jobs that were posted within 24 hours. For some postings, there can be such a high volume of applicants that if I saw something with 100-200+ applicants I would just avoid it. It really does help to be an early applicant. There were so many times where I would apply to a job that had just been posted and was then reached out to by a recruiter within the hour, sometimes even within minutes. This isn't true for all postings, but it certainly helps to get in early.

Another one of the biggest things you can do whenever possible is to reach out to recruiters. This is often the secret sauce when it comes to getting placed on top of the pile of applicants. If you're using LinkedIn Premium, you'll have InMail credits you can use to reach out without having a connection. Reaching out to recruiters directly will allow you to directly share your portfolio with them as well. However, I do understand that there are often many barriers between recruiters and applicants, so just do your best.



One effective tool for finding recruiters is **Hunter.io**, but this tool is for obtaining emails. There is no harm in sending a cold email to a recruiter or company leader (if it's a startup), and in many cases this has landed people jobs. Don't fear the cold contact, just go for it. The worst that can happen is they just ignore you.

I reached out to many recruiters and while this did get me further along in the application process, my first job in data was not obtained by cold emailing a recruiter. So, while this is an incredibly helpful tactic, it is not the end all be all.

In many ways, applying to jobs is a numbers game. I applied to over 200 jobs before I landed my first job in data, so just keep trying! Commit to sending a few applications a day. If you're using LinkedIn, you can take advantage of their "Easy Apply" feature to increase volume for some applications. While you should try to individualize every application for best results, the Law of Averages essentially dictates that something will eventually happen after enough repetition, so just keep going for it.

INTERVIEW PREP

There are 2 categories I'd like to break down interview prep into: technical skills and soft skills.

Technical Skills

If you've made it this far, you've likely already put together at least a handful of dashboards along with your landing page. This means that your visualizations have probably already been viewed by the recruiters, but sometimes the hiring manager interviewing you won't have seen them yet. Because of this, be sure to print out copies of your visualizations to distribute to your interviewers if your interview is in-person.

Often, data interviews will consist of a skills assessment, the most common being for SQL. There are two great resources I'll recommend for SQL. These are great for interview prep but they're also great just for practice, even after you've gotten a job.

- **datalemur.com** - 50+ SQL interview questions asked by top tech companies such as LinkedIn, Facebook, and Tesla.
- **leetcode.com** - plenty of resources here including study plans, practice problems, contests, and discussions.

Soft Skills

A soft skill can be defined as a personal attribute that demonstrates situational awareness. In other words, they're personality traits that relate to how you interact with others.

Even though data jobs are skill-based, companies still want to hire people they can trust and depend on; not just people who can write good SQL code or make nice charts.

People often miss out on getting hired based on this aspect of the interview, despite being skilled analysts. I was told by my boss after being hired for my first analyst job that they had interviewed many people before me who were very skilled in data, but they felt I was “the one” based on how I was able to talk through and relate my experience.

Be sure to take some time to prepare thoughtful responses to situational and character-related questions, just like you would for any other job. I bring this up because it can often be overlooked by those focusing only on technical skills. If you can demonstrate your ability, adequately talk through your experiences, AND show them you’re a well-rounded person, you’ll nail the interview.



CONCLUSION

I hope this guidebook was helpful in explaining the importance of having a data portfolio and practical enough to pave a path for you! Data, being a very competitive and skill-based job field, requires being able to demonstrate your knowledge and ability. With some projects under your belt and a phenomenal portfolio in hand, you're ready to start impressing hiring managers and achieve your goal of becoming a Data Analyst!