

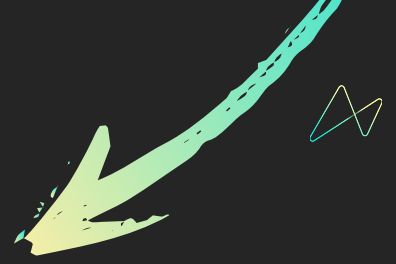


# HOW TO BUILD A STRONG DATA ANALYST PROJECT PORTFOLIO

## IN THIS GUIDE

The **5 steps** to make your project portfolio **stand out** so you can land your **dream job**

# READ THIS FIRST



I'm so excited that you grabbed this playbook. It shows that you are serious about building a project portfolio that will push your data analytics career to the next level.

## WHY DOES YOUR PORTFOLIO MATTER?

In today's hiring market it is clearer than ever that the strongest asset a data analyst can have to showcase their skills is a project portfolio. **Companies need to see the actual work that you can do, not just a bunch of skills listed on your resume.**

You would never hire a designer or an architect without looking at their work, so why would a company hire a data analyst without seeing their project portfolio?

...Exactly, they are going to hire an analyst that has a compelling portfolio. So let's get into it and show you how to create quality projects and a captivating portfolio to get you one step closer to landing your dream job.

## Enrique Ruiz

*Learning Experience Designer & Excel  
Instructor at Maven Analytics*



# PRO TIP

Commit to it. Follow this guide and you'll have access to the resources you need to guide you all the way to completing an analyst portfolio of your very own!

When you complete the steps in this playbook you'll have an advantage in showcasing your skills and landing your dream job. Let's do it!

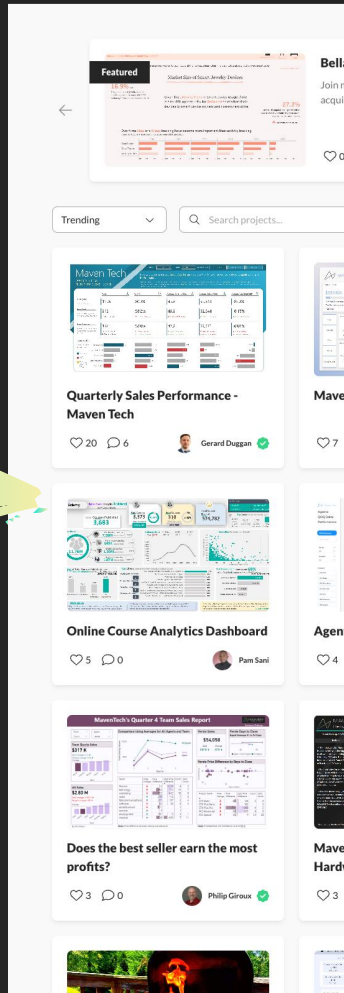
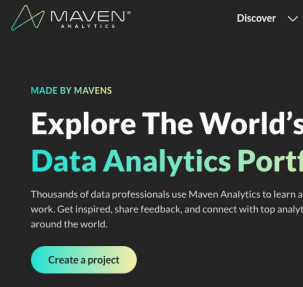
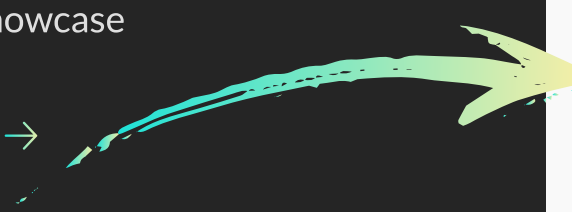
## HERE'S WHAT WE'LL COVER

- 1 Know the true purpose of a project portfolio
- 2 Make your profile pop
- 3 Build projects that follow the winning formula
- 4 Package and publish your showcase
- 5 Keep it fresh and evolving

## BONUS CONTENT

You can view examples of **excellent projects, analyst portfolios, and find inspiration** by exploring featured projects on the Maven Showcase

[View Maven Showcase](#) →



## 1

# Know the true purpose of a project portfolio



*Hint: It's to "Show & Tell" the Analytics Trifecta*

The key to a successful project portfolio is to start by defining its purpose and keeping its end user in mind.

In other words, what is the portfolio trying to achieve? A great project portfolio should highlight these aspects of you as an analyst:

- ✓ Technical proficiency
- ✓ Strategic thinking
- ✓ Communication skills
- ✓ Business acumen
- ✓ Passion for analytics

*The Analytics Trifecta!*

If I'm being honest, this is quite a lot to accomplish. And a major pitfall is trying to accomplish too much of it too soon. Trying to convey all these things effectively is challenging, and trying to convey them immediately is impossible - so don't try it. This is where the end user comes in.

If you think about the prospective employer or client that you're trying to prove your skills to as weighing you between 200 other options, then you quickly realize that you don't have much time to make an impression. Here are my recommendations:

## BONUS CONTENT

[Learn more about the Analytics Trifecta](#) 





## 1

# Know the true purpose of a project portfolio



Every analyst's resume has a way of telling people the skills they have or the software they are proficient in. The problem is that this does nothing towards actually proving this is true. How do you differentiate two candidates with "5-star Excel skills" on their resume? You can't. Sure, you can have them take a technical assessment or interview, but what if it's 200 candidates and not 2? Suddenly, that's not such a viable option.

This is why a project portfolio is the **best way of showing someone what you can do as an analyst**. Comparing Excel projects between those same two candidates is the perfect way of differentiating them. Now, I know what you're thinking... *what if you need to compare Excel projects between 200 candidates and not 2, is anyone going to go through that?*

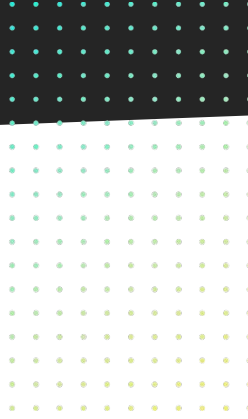
Here's the thing about that, and it's something that rarely gets brought up in conversations around project portfolios: building a strong project portfolio is hard work. It's certainly much harder than putting together a resume. So chances are that, while all 200 candidates may have resumes, they most likely won't all have project portfolios...and you've got this guide giving you the formula for success. Step 1 complete! Look at you crushing it!

Let's compare some examples to see how this works...



## 1

# Know the true purpose of a project portfolio



## John Smith

### DATA ANALYST

Malibu, CA | fakeresume@outlook.com

#### SKILLS

- SQL querying & analysis
- Excel data modeling & visualization
- Power BI dashboard design
- Working knowledge with Python, R

#### EMPLOYMENT HISTORY

##### Data Analyst

*Stark Industries - Malibu, CA*

- Created monthly performance dashboards with power BI to analyze sales & revenue data
- Use SQL to analyze churn from customer database
- Developed Excel data model to identify top performing products and increase profit margins by 10%
- Got promoted a bunch of times

##### Manufacturing Team Member

*Wayne Enterprises - Gotham, NY*

- Analyzed monthly reports to help improve supply chain operations
- Created a logged daily reports to communicate insights to management

#### EDUCATION

##### Computer Systems Technician Diploma

*Faber College - Eugene, OR*

### STANDARD RESUME

Let's see what she can do?



## Stacy Giroux

### DATA ANALYST

Alberta, Canada | fakeresume@outlook.com | LinkedIn | [Project Portfolio](#)

#### SKILLS

- Excel data modeling & visualization
- Power BI dashboard design
- Working knowledge with SQL, Tableau

#### EMPLOYMENT HISTORY

##### Quality Improvement Team Member

*Primary Care - Alberta, Canada*

- Created exploratory dashboard with Power BI to provide senior leaders data-informed support for real-time operational decision making
- Developed Excel data model to collect and model information in all key operational pillars
- Automated flows with Microsoft ecosystem to create visualizations across multiple platforms (*Power BI, Teams*) for various stakeholders and access levels
- Designed Excel one-page visualization template to provide assessment of stakeholder need against resource utilization

##### Process Improvement Team Member

*Acute Care - Alberta, Canada*

- Analyzed clinic records in Excel to identify gaps and facilitated the clinical team through improvement changes that doubled availability without increasing staff.
- Promoted multiple times

##### Manufacturing Team Member

*Cancer Clinical Research - Alberta, Canada*

- Analyzed monthly reports to track product delivery with a record of No-Stock-Out
- Modified report process to clear backlog and improve communication insights to management

#### EDUCATION

Bachelor of Science

CUE, Edmonton

### RESUME WITH PROTFOLIO

# 1

# Know the true purpose of a project portfolio

WOW!



**Stacy Giroux** ✓  
 Bootcamp / Cohort Lead  
 Maven Analytics

**About Stacy**

Self-proclaimed data-mom who feels a relaxing weekend CAN include analyzing your kids' LEGO® collection. I'm passionate about all-things data and try to share that enthusiasm in my own work and with others.

**Maven credentials**

**Work experience**

**Bootcamp Lead**  
 Maven Analytics  
 Jul 2022 - Present

**Quality Improvement Facilitator**  
 EOPCN  
 Sep 2019 - Jul 2021

**Senior Process Improvement Consultant**  
 Alberta Health Services  
 Apr 2016 - Aug 2017

**Education**

**Bachelor of Science**  
 Concordia University of Edmonton

**AIW Greenbelt**  
 Alberta Health Services

**Project Management Certificate, Lean Six Sigma Greenbelt**  
 Northern Alberta Institute of Tech

**Prosci Change Management**  
 Prosci

**Projects** | Liked Projects

**What has the pandemic remote work?**  
 The abrupt shift to remote work for both employees and emp learnings from this time t integrate remote work g

**An interactive look at subthemes from 15**  
 From the beginning of th subthemes for newly rele dashboard lets the user e year over year during thi

**A data-mom's look at collection.**  
 This visual represents a g LEGO® collection. This c family since the very first reviewers help build bett

**Getting Around Ne**  
 This explanatory Excel on city safer based on traffic there certain modes of tr intersections or times of

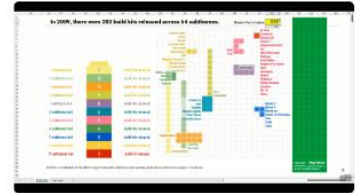
**Maven Supplies: At Maven Supplies shi**  
 Maven supplies is a fictio interactive dashboard to OPERATIONAL teams in business: ORDERS, REV

## An interactive look at the dramatic increase in LEGO® subthemes from 1990 to 2009.

Stacy Giroux  
 Maven Analytics

Tools used in this project

Share

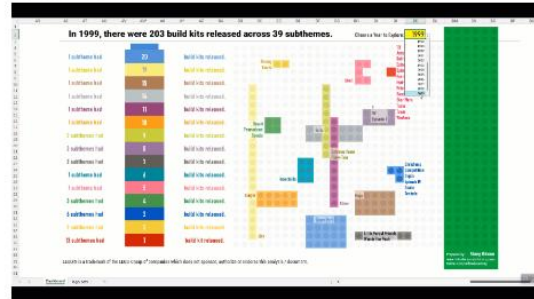


### About this project

This dashboard was inspired by the Maven LEGO® Challenge and as a follow-up to my other dashboard where I analyzed my own family's LEGO® collection (A data-mom's look at her kids' ever-growing LEGO collection).

In that first dashboard, I created a stylized tree-map / waffle chart that evoked the LEGO® theme by creating the effect of overlapping stacked bricks. That visual was static. For this new project, I wanted to recreate the tree-map / waffle chart but make it interactive and dynamic so the user could PLAY with stacking the LEGO® bricks as they were exploring the data.

Check out my final result here:

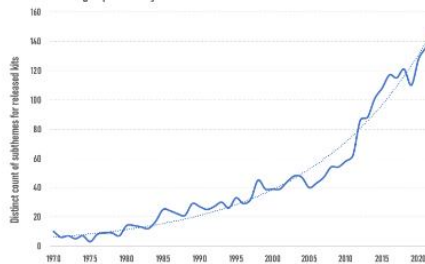


### About the Build:

#### 1. Choosing the right subset of data.

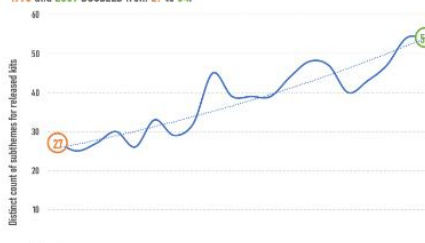
- While profiling the data, I purposefully looked for a perspective that would be interesting for the user. This data set had more categorical options (theme group, theme, subthemes) than the one I had created for the analysis of my own family's collection.
- One insight that jumped out at me was how the number of subthemes appears to be increasing exponentially from 1970 to 2022.
  - Subthemes also paralleled the categories I had used in my original tree-map / waffle chart visual, so I decided to stick with this level of granularity.

The distinct count of subthemes for the build kits released each year has been increasing exponentially since 1970.



- I also knew going into the build that there would be a high burden to set-up the interactivity function inside Excel. Based on that, I decided it would not be feasible to visualize the entire data set from 1970 to 2022.
  - I decided to focus in on the time frame from 1990 to 2009. Over this 20-year span the number of subthemes had doubled from 27 to 54.

The distinct count of subthemes for the build kits released between 1990 and 2009 DOUBLED from 27 to 54.



**MAVEN ANALYTICS**  
 Empowering everyday people with life-changing data skills.

Subscribe to the newsletter

No spam, just helpful tips & tricks delivered directly to your inbox

**LEARN**  
 Self-Paced Courses  
 Learning Paths  
 Guided Projects  
 Cohort Learning  
 Credentials & Badges

**DISCOVER**  
 Maven Showcase  
 Testimonials

**PLANS**  
 Pricing

**RESOURCES**  
 Maven Blog  
 Data Challenges  
 Data Playground  
 Guides & Reports

**Maven Of Data**  
 Find Your Path

© Maven Analytics, LLC. All Rights Reserved | Terms & Conditions | Privacy | Community Forum Policy

# 2

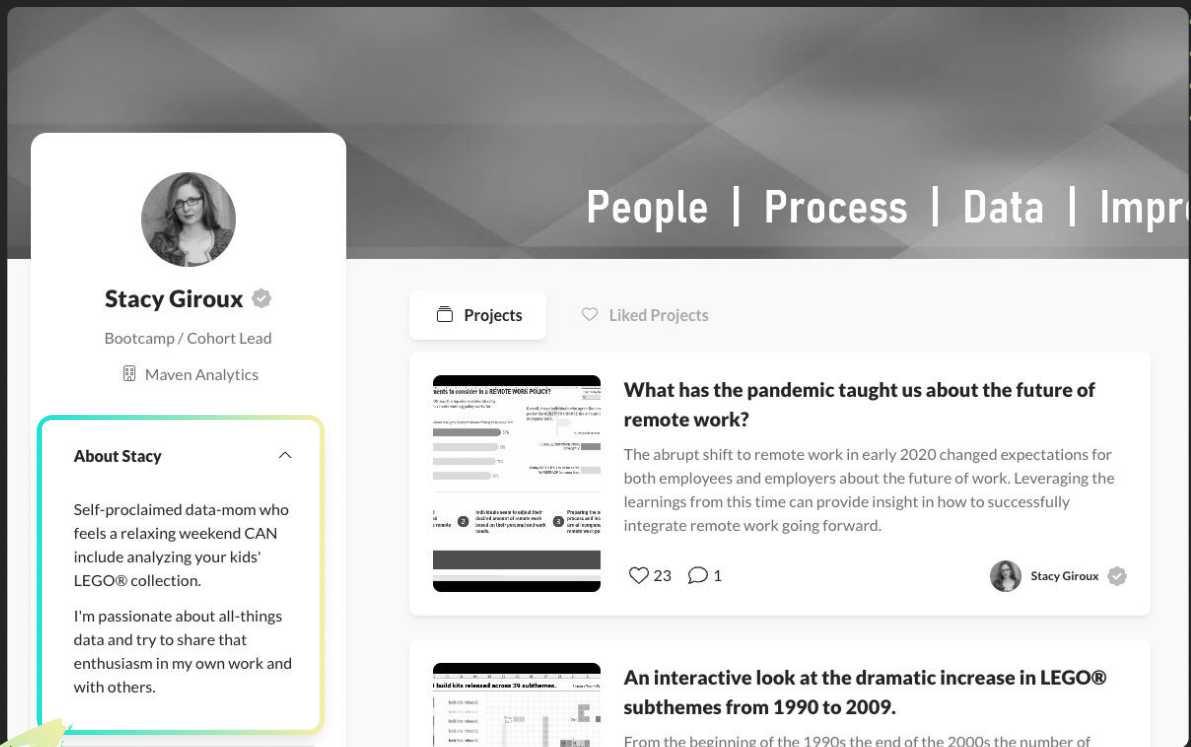
## Make Your Profile Pop



There are a handful of options for where to build and host your portfolio (we'll cover our recommendation in step 4 of this guide). Regardless of the tool you use, your profile is an important part of communicating who you are and why you are uniquely you. Here are a few important ways to make your profile pop.

### Keep your “about” section brief and original.

This is your first hook and can be used to display your passion for analytics, as well as communication skills (it's much harder to be concise than long-winded).



**LEARN MORE ABOUT STACY**

Visit Stacy's portfolio →

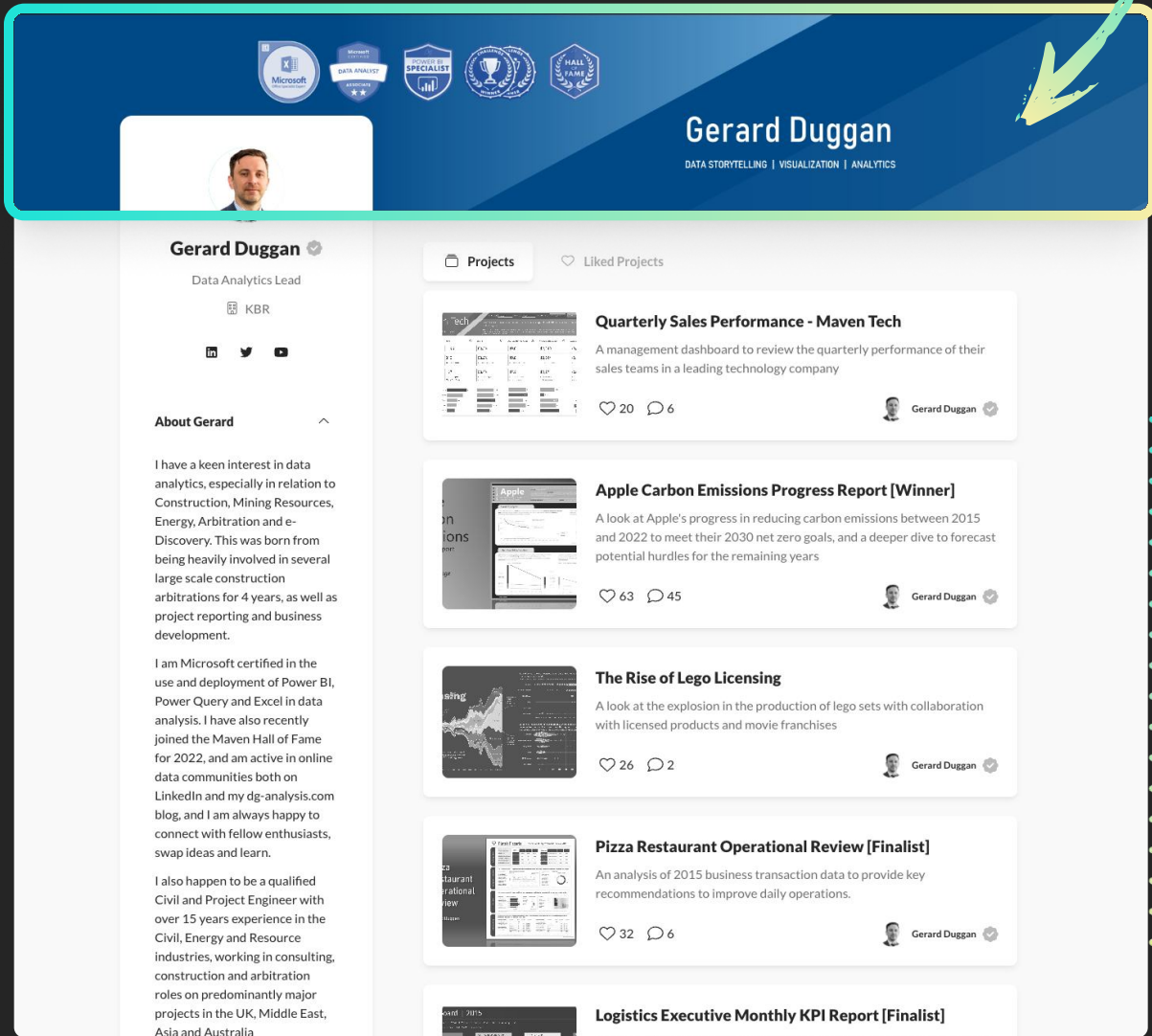
# 2

# Make Your Profile Pop



## Take advantage of the “header image” section

Anyone looking at your portfolio will glance at this, whether they intended to or not, so try to add in a bit more information about yourself (like certifications or credentials).



### LEARN MORE ABOUT GERARD

Visit Gerard’s portfolio [→](#)



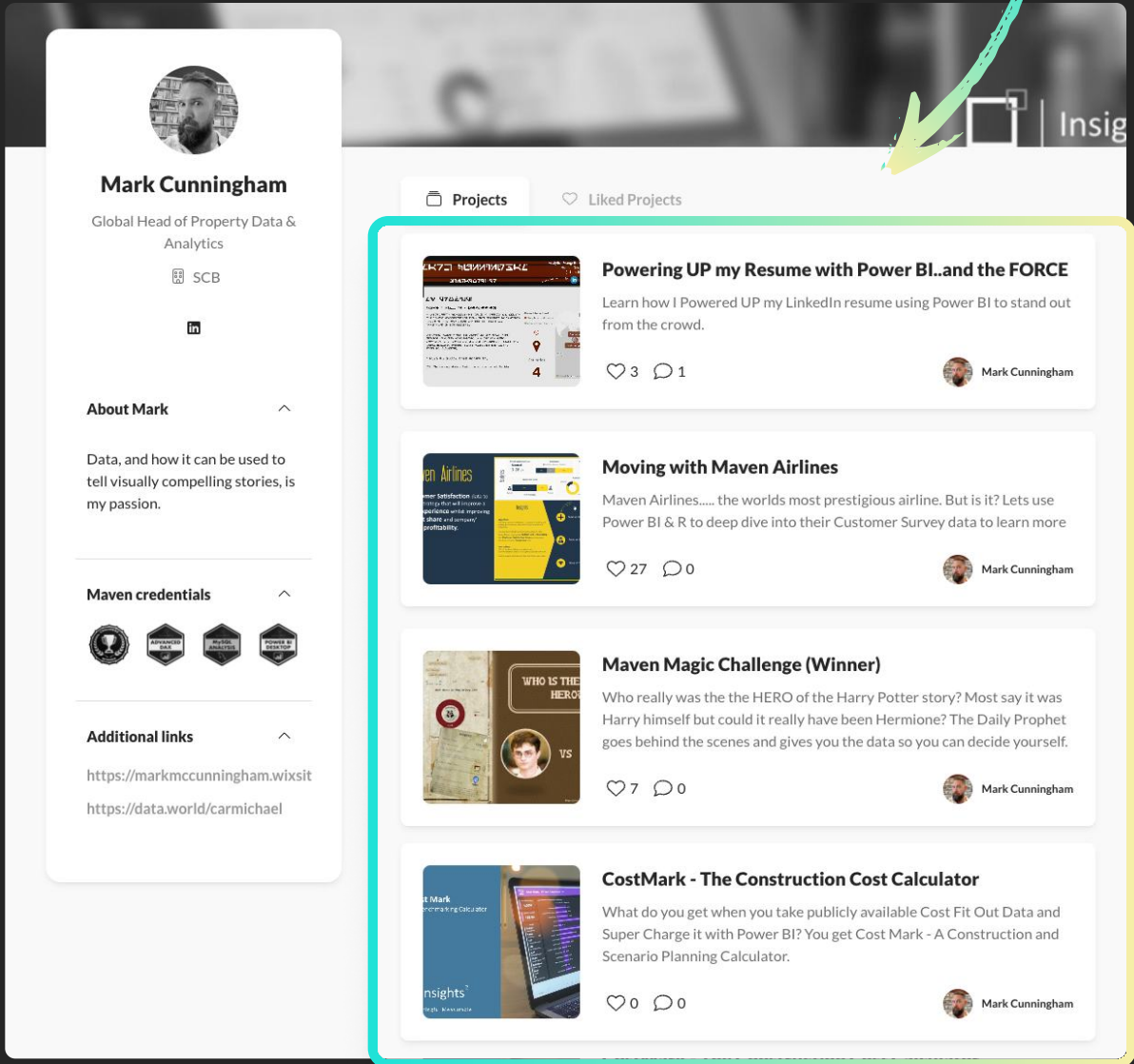
# 2

# Make Your Profile Pop



## Use engaging project titles and excerpts.

You can't pay off your entire project in a few seconds, but what you can do in that time is get someone interested enough to click into it.



You may notice that none of this goes very far in highlighting the aspects of yourself I outlined earlier, but that's ok. That's where the projects themselves come in. So let's hit that in the next step.

**LEARN MORE ABOUT MARK**

Visit Mark's portfolio [→](#)

# 3

# Build projects that follow the winning formula

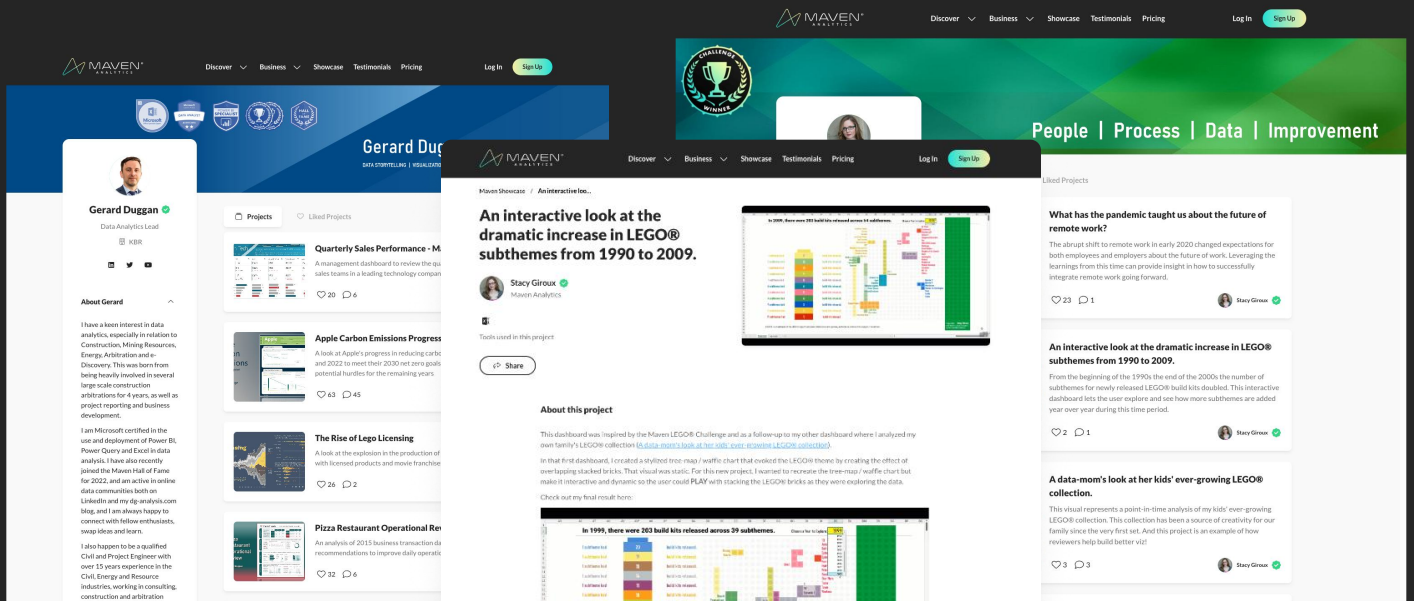


A great portfolio project should be clear and easily consumable, and guide the viewer through your thought process and approach. **This is the step where a lot of people get stuck, but I'm giving you the winning formula for building portfolio projects..just follow this playbook and you'll be all set:**

## THE WINNING PROJECT PLAYBOOK

- 1 Start with the business case
- 2 Show your insights and impact
- 3 Use data to tell the story
- 4 Provide some technical depth

Ok, great we have the playbook, now let's break down how to implement each step. Ready?





## 3

# Build projects that follow the winning formula



## 1 Start with the background or business case

This first step is key, as you may lose your audience if you dive straight into the technical stuff. So always lead your project's description with high-level context, including an overview of the **business case** and the **problem you solved**.

### Business Case Example

#### Objective

The goal of this project is to create a dashboard that displays the overall sales figures and performance of the fictional coffee shop Maven Roasters to the business owners.

The end-users should be able to identify:

- The monthly sales and transaction trends
- The peak sales period
- The best-selling menu items by orders

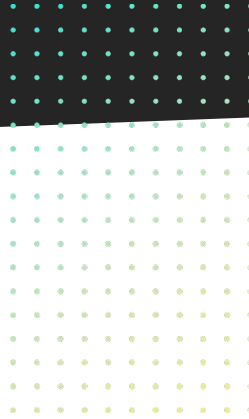
***Pro Tip:** Lead with business context to speak the language of potential employers and keep non-technical audiences engaged*

### Problem Solved Examples

- Hotel cancellations cost the business nearly \$1 million in revenue last year
- Marketing campaign conversion rates have dropped steadily this year
- Growth in website visits has not translated into increased conversions

## 3

# Build projects that follow the winning formula



## 2 Show your insights and impact

Once the audience is aware of the context, describe the key insights you derived in your analysis and the impact they drove for the business. This will emphasize your **business acumen and your ability to communicate effectively**.

### Example

#### Key Findings

- Sales and Transactions exhibit a positive trend as the months progress.
- The morning rush on Mondays, Thursdays, and Fridays marks the peak sales period.
- Weekends experience significantly lower sales compared to weekdays.
- The most popular orders include coffees, teas, and bakery items, with 42% of orders placed for coffees.
- Ethiopian and Brazilian coffees are the most popular flavors, while Jamaican Coffee River generates more sales.
- Packaged Chocolate is the least ordered item.

#### Recommendations

- Focus on staffing and stocking during peak sales periods: Morning rush (8 am - 10 am) on Mondays, Thursdays, and Fridays.
- Consider adjusting business hours, considering the drastic decrease in sales after 7 pm and on weekends. Suggested hours are 6 am to 7 pm on weekdays and reduced hours on weekends.
- Remove Packaged Chocolate items from the menu.

**Pro Tip:** Include tangible, measurable results whenever possible to quantify the impact of your analysis

# 3

# Build projects that follow the winning formula



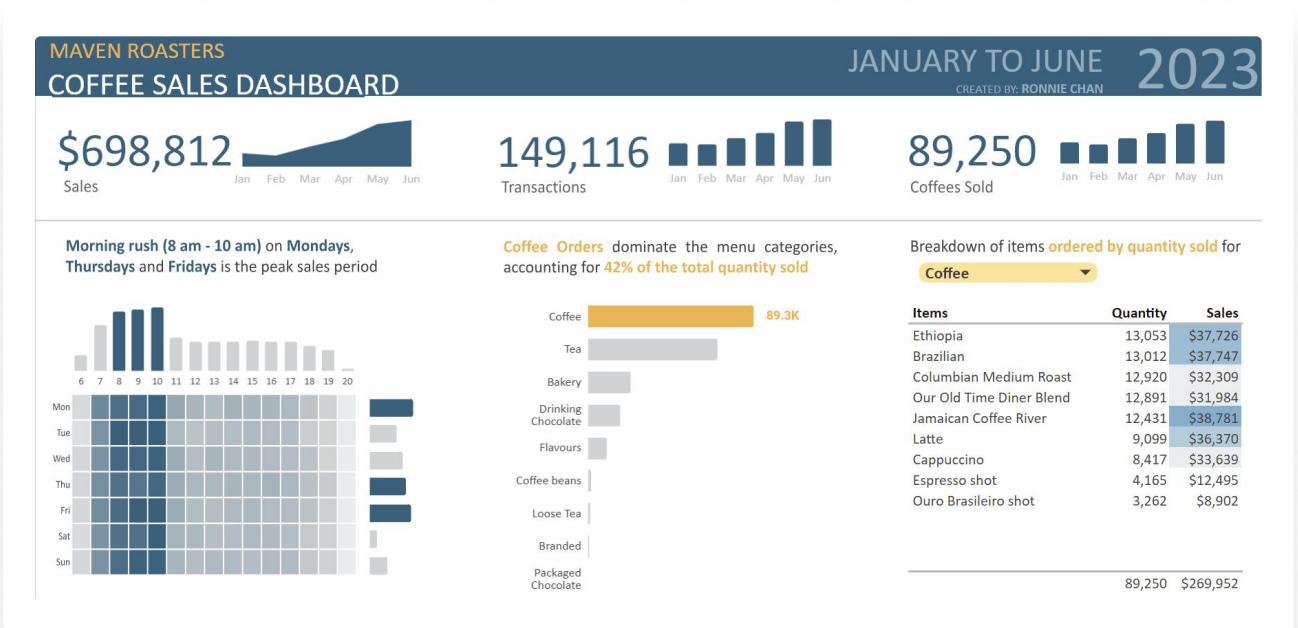
## 3 Use data and visuals to tell the story

With the starting and ending points for the project established, it's time to connect the dots.

Data visualization is your best bet at bringing the data into play for any audience to understand, which is why charts, graphs, and dashboards represent the ideal use of images in a project.

In my opinion, the main dashboard (*if there is any*) should be included in the main project image, and any supporting views can be added to the additional images.

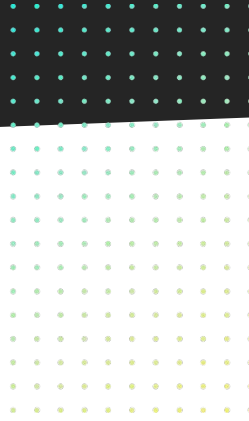
Finally, you can add charts you used to explore the data as part of your process inside the project description itself.



Source: Maven Coffee Roasters project by [Ronnie Chan](#)

## 3

# Build projects that follow the winning formula



## 4 Provide some technical depth

While it may be counterintuitive, this is where you want to flex your strategic thinking and showcase how you approach and solve problems as an analyst. Don't worry too much about diving deep into the technical details, it's more about making it clear that you can generate good ideas and execute them.

### Example

#### Approach

1. The initial step involves performing data cleaning on the dataset. Surprisingly, there are no duplicated transaction records in the dataset. The next step is to split the `transaction_date` column into Month, Day of Week, and Hour. Additionally, I separated the `product_detail` column into item and size (Sm, Rg, Lg). This helps reducing data redundancy.
2. **For the KPIs**, I chose to display the total sales, total transactions, and the number of coffees sold, along with their corresponding charts illustrating monthly trends from January to June 2023
3. To represent the **sales breakdown by the hour of the day and by days of the week**, I used bar charts to track sales, highlighting the peak sales period with a darker color.
4. **For the heatmap**, I created a separate worksheet to allow uniform resizing of columns and rows into narrower squares. By utilizing SUMIFS, conditional formatting, and number format customization, I successfully built a heatmap for the sales breakdown across both hours and days of the week. (Note that heatmap chart is not available in Google Sheets)
5. **To compare categories**, I used a horizontal bar chart and arranged the categories in descending order. Once again, the bar/category with the highest quantity sold has been colored in a darker tone.
6. **For displaying items within the selected category**, I opted for the QUERY function instead of Pivot Tables. This function is more flexible and performs better with the dynamic drop-down list. With just one formula, I can retrieve three pieces of information (Items, Quantity, and Sales) for the selected category.

# 4

# Package and Publish Your Analyst Portfolio



The next step is obvious...you've actually got to package it up and publish your portfolio...for real. It's not as scary as you think. Keep in mind that this is your chance to stand out!

Where should you build and host your portfolio?

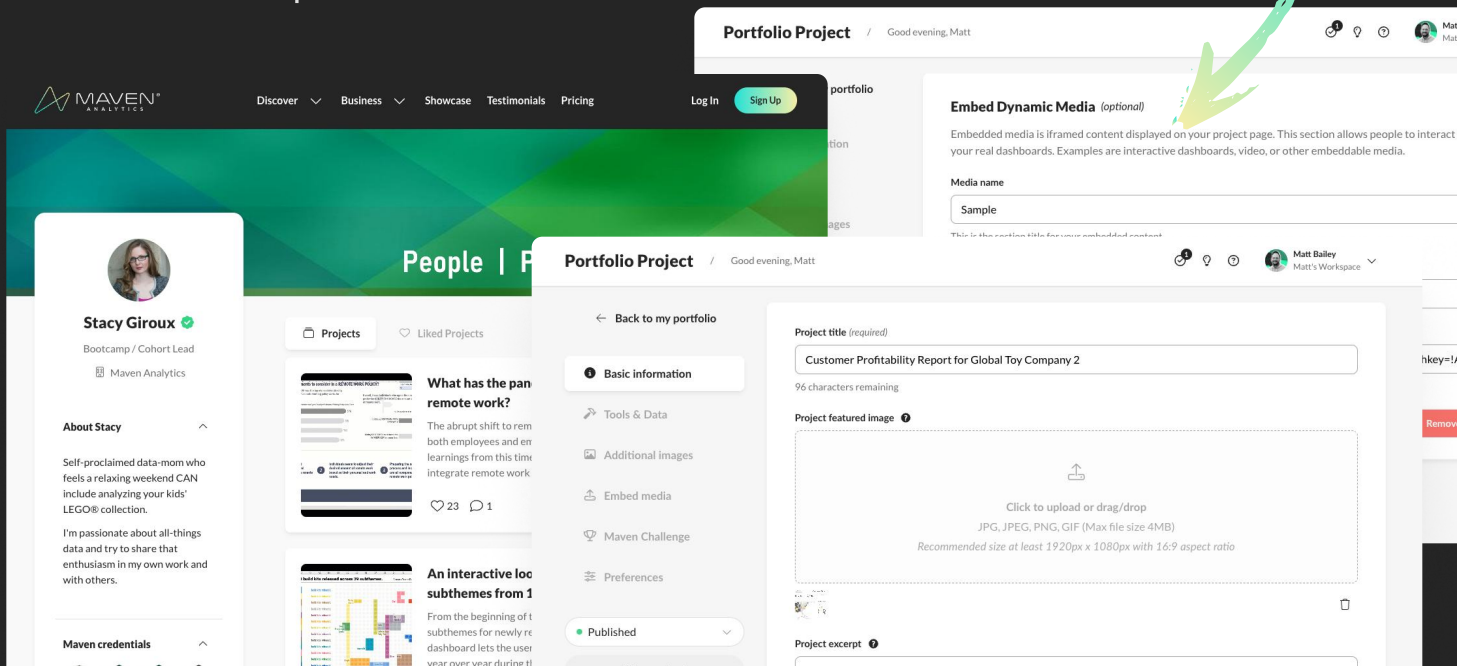
I recommend Maven Analytics free [Project Showcase platform](#) which is purpose-built for data analysts to host your portfolios and showcase your work. It meets all our criteria for an ideal portfolio solution:

- ✔ Easily sharable
- ✔ Easy to manage
- ✔ Clear and consumable
- ✔ Free/cheap to host
- ✔ Publicly accessible

It's intuitive and easy to use. This is where it gets real. The only way to finish is to get started.

And once you get started there are lots of [resources on the platform](#) including access to more tips and guidance from experts. You can do it!

check it out!



# 5

# Keep it Fresh & Evolving

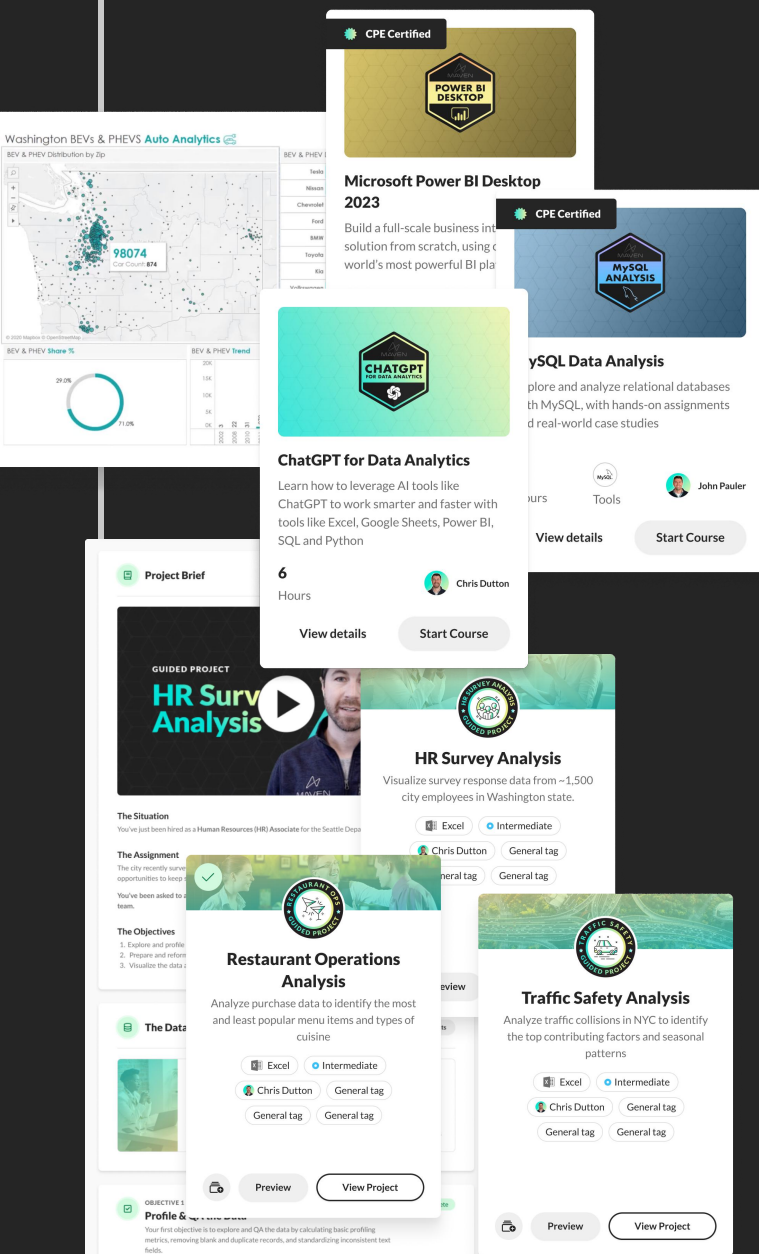


Now that you know what it takes to build a strong data analytics project portfolio, time to get to work!

Lucky for you, I'm going to share everything you need to find and complete real-world projects that will help you stand out.

You'll want to strive to include at least three or more projects in your portfolio.

Here are a few avenues for you to complete real-world projects if you don't have any of your own already:



## Course Projects

Most **courses** at Maven Analytics (and other platforms) are **hands-on & project-based**.

Use existing course projects or create your own using the provided data to start building a portfolio while you learn.

[Explore courses](#) →

## Guided Projects

Complete industry-specific **Guided Projects** curated by the Maven instructors

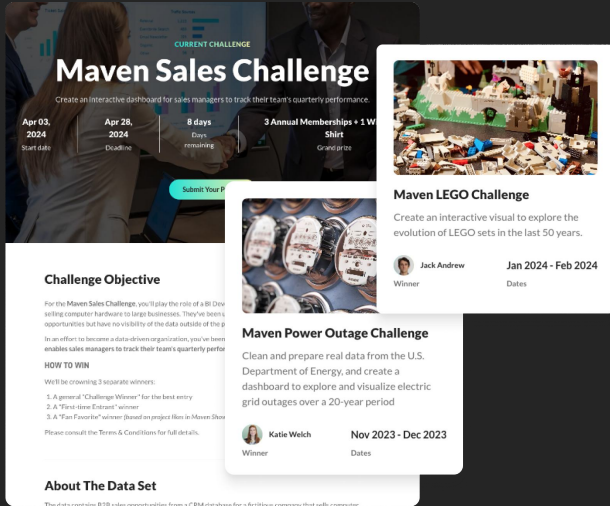
Each project is designed to let you build confidence by solving a set of predefined tasks, and use guidance only when necessary.

[Explore guided projects](#) →



# 5

# Keep it Fresh & Evolving



## Data Challenges

Participate in monthly **Data Challenges** created and judged by the Maven team

Each challenge comes with a real-world prompt, allowing you to apply your skills, showcase your work, and win prizes

[Explore challenges](#) →

Once you have a few projects published, give yourself a high-five and take a deep breath. You did something that will help you stand out from the crowd...but make sure you keep your portfolio up to date.

This industry moves forward all the time and you want to demonstrate that you are keeping pace with your skills and your work.

Stay curious, always be learning and update your portfolio with new projects a few times a year. You'll see the results if you do!

My final suggestion is to go with topics that excite you and you're passionate about. Remember, it's hard enough putting these together, so you might as well go with something you'll have fun with.







# Key Takeaways

- 1 Project portfolios are the best way to prove your analytics skills**  
Employers want to see that you have what it takes to get the job done
- 2 Find or create your own projects if you don't have job experience**  
Use free online data sources to create your own projects, or seek out real-world volunteer opportunities
- 3 Use the Maven Analytics platform to build, host, & share your project portfolio**  
It's free, publicly accessible, and purposefully built for data professionals to showcase their skills
- 4 Make sure your communication skills & personality shine through**  
Use your portfolio to showcase strategic thinking & communication skills, not just technical proficiency

Get started today!



## Want more content like this?

Check out our [Launching Your Data Career](#) course!

Spoiler alert... if you followed this guide and launched your project portfolio you are already part of the way through the **Career Launch Checklist** from the **Launching Your Data Career** course!

