

Data Science Resume Guide



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Welcome!

Congratulations on signing up for the Data Science Resume Guide!

We've designed the Data Science Resume Guide to be easily self-taught. Each step follows logically from the next, with "how to take action now" prompts as well as worksheets to help you along and deliver the little wins that'll keep you motivated.

Before you get started, two **important logistical announcement**

The Worksheets. We recommend downloading these before you start going through the Guide. To do so, simply click **here**, and they'll automatically download to your computer. (You may just need to click 'open' to approve).

The Templates. You can download these now, by clicking **here** and **here**.

Enjoy! ☺ ...

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STEP

1

STEP 1: Figuring Out What's Been Going Wrong

1.1 Purpose of Your Data Science Resume

Before we launch into advice on how to craft a stand-out resume, it is important to remind ourselves of the purpose of a resume. After all, knowing that can go a long way to inform what should be in there. So, what is the purpose?

There is only one purpose for a resume - to convince a Hiring Manager to offer you an interview. Your resume is a specific marketing document, nothing more, nothing less. It must convey the right messages about your skills and background to the Hiring Manager so they believe that you have what it takes to be a success on their team. It must excite the Hiring Manager enough to invite you for an interview.

It is very important to remember this purpose, as not only will it inform what you should do, it also informs what you should not do.

6 STEP I | Figuring Out What's Been Going Wrong

What your resume is not. Your resume is not the place to list

- Every job you've ever had - many will be irrelevant, and that is a distraction to a busy Hiring Manager who wants the right candidate to jump off the page
- Every skill you have – most will be irrelevant, you want to showcase the right skills for the right job
- Every programming languages/ libraries, technologies you've worked with - again, relevancy is key
- Every stage of your educational background - unless there is relevancy (and ideally recency), the Hiring Manager is going to gloss over them very quickly so you're losing valuable real-estate to convey a more compelling story

This leads us to some of the common pitfalls we see regularly, which could be harming your chances of landing a Data Science Interview.

I.2 Six Ways Your Resume Could Be Sabotaging You

In our experience, there are 6 ways your resume may be sabotaging you. Figuring out which of these apply to you is the first step in the process to crafting a stand-out resume.

So, what are the typical pitfalls (or 6 saboteurs as we like to call them!)? We'll go into each in more detail below, as well as highlight questions to ask yourself to identify if they could have been impacting you.

I. Generic Resume - No Tailoring:

A mandatory rule to keep in mind at all times is that your resume should be tailored to each position you're applying to. Churning out the same generic resume to hundreds of positions is not going to deliver the results you want. Some people will tell you "it's a numbers game". However, consider the Hiring Manager's perspective - they have to read hundreds of

resumes / cover letters - for them, success is quickly being able to assess a candidate's suitability versus spend a lot of time wading through the details. So the more you can tailor your content to what they're looking for, the better chance you have of winning the Hiring Manager's numbers game (which is frankly the one that matters!).

Questions to Ask Yourself

- *Have you put yourself in the Hiring Manager's shoes?*
- *Have you thought beyond the immediate job description to figure what else matters in the role?*
- *Have you identified the must-have versus nice-to-have qualifications for the role?*
- *Have you carefully selected Experiences and Skills to include (versus listing everything)?*
- *Moreover, have you tailored your resume and cover letter to reflect all of this?*

2. "Proof Points" are buried (or, worse still, non-existent):

It is critical to make it very easy for a Hiring Manager to understand how you can add value. One way to do is provide clear evidence – or “proof points”. You need to include as many *relevant* “proof points” as possible. These are the pieces of evidence from your background (skills, experiences etc.) that back up what you’re writing / implying in terms of your ability to do the job. Without these, it is very hard to assess the strength and credibility of your candidacy as well as your commitment level - both of which will harm your chances of landing an interview.

Questions to Ask Yourself

- *Have you thought explicitly about your "Proof Points"?*
- *Have you been both broad and deep in your identification process?*
- *Have you assessed which are most critical for each role?*
- *Moreover, have you figured out how to best convey them in your resume and cover letter?*

3. Keywords ignored:

There are certain skills or strengths that matter more than others for a given role. A Hiring Manager's (or in some instances even an automated screening machine's) first instinct is to scan for keywords that indicate you have these. Failure to figure out what these keywords are, and then put them on your resume, is a common and harmful issue.

Questions to Ask Yourself

- *Can you identify keywords?*
- *Have you spent time assessing keywords for different roles?*
- *Are you purposeful about placing keywords on your resume (without overdoing it)?*

4. Focusing on 'what' not 'how':

If you limit your communication to the 'what' you did, you

- a) Risk sounding very generic;
- b) Make it hard for a Hiring Manager to differentiate you from someone else with the same 'what'
- c) Miss an opportunity to shine a lot more light on your strengths

What you're missing is the 'how'. For example, if you tell me you were "Awarded 1st prize in a Data Hackathon", that's great, but I don't know much about the Hackathon or how you won the prize - and several other applicants may have the same/similar experience. If instead you added a sentence on the data you had to munge, the techniques you used to win, or how you came together as a team etc. I'd immediately learn more about either your technical or team-working strengths.

Questions to Ask Yourself

- *Have you gone beyond the 'what' on your resume?*
- *Have you showcased **how** you achieved things?*
- *Have you taken the opportunity to hammer home underlying strengths?*

5. Format is a mess:

The formatting and layout of your resume can make as much of an impact as the content itself (with unfortunately much more downside risk from a poorly formatted resume than upside from a well architected one). Your resume only gets a very short amount of time to make an impression with the Hiring Manager. To make a positive impression, the content must be clearly decipherable, and not lost amidst over-complicated hard-to-read formatting. How well your resume is formatted says a lot about your communication style and attention to detail. Candidates often overlook this, and it will hurt you.

Questions to Ask Yourself

- *Have you followed a template and best-practice formatting guidelines?*
- *Have you been thoughtful in your Section structure and ordering?*
- *Have you chosen one of the best fonts for resumes?*

6. Cover Letter is an Afterthought:

You thought you'd get your resume looking sharp and then slap a quick cover letter on top - after all, no one reads them anyway, right? Wrong. You do need a cover letter - and a well-written, coherent one at that! It is your chance to put more color and context around your story and why you're the perfect candidate for this particular position. Putting a compelling cover letter together is hard, and even if you have put time against it, the likelihood is it still needs a LOT of work.

Questions to Ask Yourself

- *Have you conveyed additional information beyond your resume?*
- *Have you got into specifics on the company, role and what you bring to the table?*
- *Have you shown you actually know what the Data Science team is working on today?*
- *Moreover, have you devoted real effort and thought to each cover letter?*

How to take action now!

Today's homework. Yes, I know - homework! There'll be work to do as we go along to make sure you're putting our advice into action – hopefully giving you some “quick wins” to keep you motivated.

Today's “how to take action now” is a simple self-assessment task. But, you do need to be a harsh self-critic; this is no time for giving yourself a pass or an easy out. The purpose of this course is to help, and the first step is to be honest with yourself in terms of where you need the help the most.

So, take a piece of paper (or open a new text file) and write down the 6 typical saboteurs down the left hand side. Then think about the questions asked after the description of each saboteur above. Finally, grade yourself on each saboteur based on the answers you thought through for each one. To score yourself, answer as follows:

- A major problem for you? Score a -10
- A minor problem for you. Score a -5
- Not a problem for you. Score a +5

Add up your scores. If you're coming in above zero you'll probably move through this guide at a faster pace (though do follow all the steps as they build on each other). If you're scoring below zero, we have work to do. Step-by-step, the Data Science Resume Guide will help you improve your score and give you a better resume! :)

STEP

2

STEP 2: Reading the Hiring Manager's Mind

2.1 How to Figure Out What the Job Posting Means

There's typically a lot of information in the Job Posting. That makes your life hard. What really matters to the position? You can't list every skill they ask for on your resume, so which should you pick to highlight? How can you make sure you're not derailing yourself from the outset?

The first step to reading the Hiring Manager's mind is to get underneath the job description itself. In assembling the Job Posting, the Hiring Manager has added a lot of detail to try to appeal as many applicants as possible. The trick for you is to decipher what on there is most critical (and hence what you should be calling out in your resume) versus what is a nice to have. While you'll have digested a fair amount of the details by reading it, you'll likely be surprised how much more room you have to prioritize the key information.

We recommend 2 techniques to reading the hiring manager's mind. Both help pull out the key messages of the job descriptions as well as highlight

12 STEP 2 | Reading the Hiring Manager's Mind

keywords that you'll need to take into account when you tailor your resume and cover letter.

1. Word Clouding
2. 1st Sentence Skimming.

I. Word Clouding

This really couldn't be easier! We recommend [WordItOut](#) though you can also use [Wordle](#) or [WordClouds](#) (or, if you want to embrace your inner geek, you can play with this awesome [D3.js word cloud generator!](#)).

How to take action now!

- a) **Pick a job posting** that you've been thinking of applying to (or are in the midst of applying to). Note: if you're not there yet, search a job site like [Indeed.com](#) and pick one that looks interesting. We'll be using this job website throughout this step, so make sure its something close to what you'll ultimately want
- b) Copy all the text (description, requirements etc.) into a word cloud generator and hit "create".
- c) Open the Worksheet file and the tab (sheet) for Step 2.1

Word Clouding	
Most prominent words	
1	xx
2	xx
3	xx
4	xx
5	xx
6	xx
7	xx
8	xx
9	xx
10	xx
11	xx
12	xx
13	xx
14	xx
15	xx

- d) Write down the 15 most prominent words that pop out to you!
- e) Save both the word cloud and worksheet file down

2. 1st Sentence Skimming

Also very straightforward. Using the same job posting you put through the Word Cloud, you're also going to skim them and pull out key sentences.

The rationale of this exercise (which has its origins in speed reading) is that the first sentences often carry the most important information that the writer is trying to convey, so focusing time understanding those can help get underneath what the Hiring Manager is most looking for.

How to take action now!

- a) Refer back to the same tab (sheet 2.1) in the Worksheets file

1st Sentence Skimming
Copy/paste of 1st sentences
xxx

- b) Copy/paste the *1st* sentence of each paragraph or block of text from the job description into the Worksheet

Let's look at examples of both in action for 3 different Data Scientist roles: eBay, Match.com and Booz Allen Hamilton. Note: We chose 3 job postings at random to illustrate (you should use the one you've chosen!).

Example 1: eBay

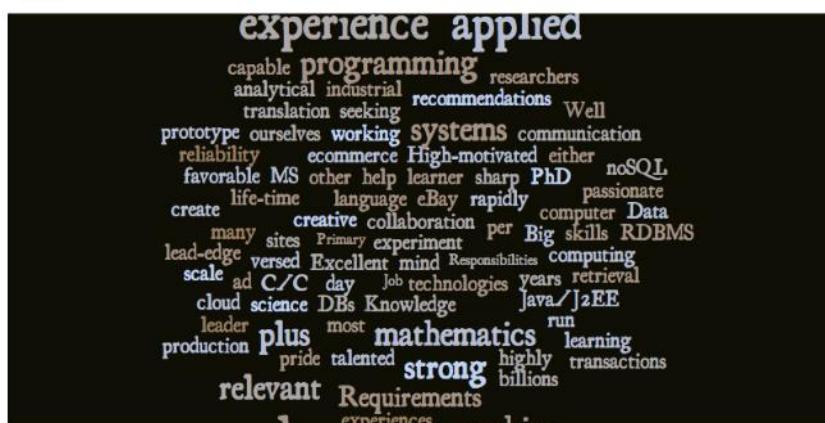
Job Description: [see original [here](#)]

At eBay, our systems scale to billions of transactions per day, and we run our sites 24x7 with 99.99% reliability. We pride ourselves to be the leader in cloud computing, Big Data, search, and many other lead-edge technologies. We are seeking a highly talented, creative, and passionate applied researchers to help us create the most relevant recommendations, machine translation and search experiences.

Requirements

- MS or PhD in computer science, mathematics or applied mathematics with 3-5 years of relevant industrial experience
- Well versed in machine learning, information retrieval, and applied statistics
- Have a sharp analytical mind
- Can rapidly experiment and prototype in your favorable programming language but is capable of working on production systems and programming in either Java/J2EE or C/C++
- Knowledge in RDBMS and noSQL DBs a strong plus
- Experience in search / search ad / ecommerce experience a strong plus
- Excellent communication and collaboration skills
- High-motivated, life-time learner

Word Cloud:



1st Sentence Skim:

At eBay, our systems scale to billions of transactions per day, and we run our sites 24x7 with 99.99% reliability

MS or PhD in computer science, mathematics or applied mathematics with 3-5 years of relevant industrial experience

Example 2: Match.com

Job Description: [see original [here](#)]

The Match Group, the absolute category leader in digital dating, is hiring!

We're looking for an Account Director to continue the momentum we're building surrounding our flagship brands including Match, OkCupid, Tinder, and our 25+ portfolio of brands.

We're looking for a clever, passionate, and detail-oriented Data Scientist to continue the momentum we're building surrounding our flagship brands including Match, OkCupid, Tinder, and our 25+ portfolio of brands.

This role is fast paced and packed with interesting challenges as you optimize our inventory. Your work will not only have a decisive impact on Match Media revenue, but you'll be improving the lives of our millions of users by bringing them the highest quality ad experience possible.

We have the speed and know-how to stay on the cutting edge of our competition, have a fun office culture of pool, gaming, free food, competitions and know good work when we see it!

Our ideal candidate:

- has a degree in an analytic field, like Computer Science or Mathematics
 - have a solid understanding of statistics and make smart decisions in the face of uncertainty
 - love the idea of optimizing ad revenue through a fast-paced process of tweaking and observation
 - love dealing with big data, databases, and know basic SQL
 - statistical modeling, correlation, multivariate regression and other prescriptive modeling techniques
 - Familiarity with programs like R, SAS, Python, Hive, and Pig
 - Understanding of machine learning and predictive analytics
 - Use of data visualization tools
 - (preferred) experience in online advertising, programmatic advertising, SEM, and display advertising bidding techniques
 - are an excellent communicator and love a vibrant teamwork environment
 - are meticulous about finding issues and following up until they are fixed
 - are excited to work with our ad network contacts to improve and optimize our ad setup
 - love to automate solution to save you time, and love to use numbers to justify difficult decisions
 - A nice to have: prior experience in the online advertising space

Making An Impression

Location and Directions

Happy People

At Match, often work doesn't feel like work. You hang out and solve interesting problems with other wicked smart people and at the end of the day you spend time on a product that helps millions of people find love. Then there's also the downtime dress code (e.g., flip flops, shorts, and hoodies), bagel Fridays, free sodas and coffee, Summer parties at the lake, Holiday Costume parties, monthly happy hours.



AndyC

Word Cloud:



1st Sentence Skim:

We're looking for a clever, passionate, and detail-oriented Data Scientist to continue the momentum we're building surrounding our flagship brands including Match, OkCupid, Tinder, and our 25+ portfolio of brands.

has a degree in an analytic field, like Computer Science or Mathematics

Example 3: Booz Allen Hamilton

Job Description: [see original [here](#)]

Key Role:
 Work in a fast-paced and high visibility new program to create, analyze, and document performance measures against the client's strategic plan. Support and complement the analysis of the current performance measure environments by developing recommendations and roadmaps for future performance measure environments. Assess data-centric commonality and individuality of data. Interact with systems and tools to assess what data and metrics are available. Develop scripts to ETL data. Develop data visualization and recommend and develop automations to support performance measure reporting.

JOB REQUIREMENTS

Basic Qualifications:

- 1+ years of experience with extracting, transforming, and loading data
- 1+ years of experience with Microsoft Excel
- Experience with commercially available tools
- Experience with programming and scripting with languages and technologies, including Java, NoSQL, or Python
- Experience with data visualization and data statistics
- Ability to think creatively to develop innovative solutions in a team environment
- Ability to obtain a security clearance
- BA or BS degree

Additional Qualifications:

- Experience with Big Data programming technologies, including Hadoop, MapReduce, Accumulo, Cassandra, HBase, R, Mahout, Pig, and Hive-BA
- Possession of excellent oral and written communication skills
- Possession of excellent data gathering, analytical, and problem-solving skills
- BA or BS degree in Statistics, Mathematics, Physics, or CS preferred; MA or MS degree in Statistics, Mathematics, Physics, or CS a plus

JOB SNAPSHOT

- Employee Type: Full-Time
- Location: Herndon, VA
- Job Type: Science
- Experience: Not Specified
- Date Posted: 12/10/2015

ABOUT US

Booz Allen Hamilton has been at the forefront of strategy and technology for more than 100 years Today, the firm provides management and technology consulting and engineering services to leading Fortune 500 corporations, governments, and not-for-profits across the globe. Booz Allen partners with public and private sector clients to solve their most difficult challenges through a combination of consulting, analytics, mission operations, technology, systems delivery, cybersecurity, engineering, and innovation expertise.

Word Cloud:



1st Sentence Skim:

Work in a fast-paced and high visibility new program to create, analyze, and document performance measures against the client's strategic plan

1+ years of experience with extracting, transforming, and loading data

Experience with Big Data programming technologies, including Hadoop, MapReduce, Accumulo, Cassandra, HBase, R, Mahout, Pig, and Hive-BA

Applicants selected will be subject to a security investigation and may need to meet eligibility requirements for access to classified information

You can already see from this quick exercise that the jobs have a different feel and subsequent needs. The eBay role is much more technical, big-data heavy and looking for an extensive (including PhD level) applied quant background. The Match.com role is looking more for a balance of analytical strength and passion for their brands and the advertising industry... a Data Scientist who likes to dig into product details and apply typical statistical techniques to derive insights. The Booz Allen role would be client facing and while significant data lifting and sorting is required, it has much less of a quant (or prior experience) focus than the eBay role.

Now the slightly trickier, but critical, step - pulling insight out of these techniques to inform your resume. Specifically, we're going to identify

- The “objective” of the Data Science Team
- 3 key requirements for the role (note: can be technical or softer)

Don't worry about perfection – the key is to let the results of the Word Clouding and 1st Sentence Skimming guide you

To help, let's first complete this for the 3 example job postings.

Example 1: eBay

eBay is hiring a Data Scientist to develop recommendation and translation systems. Requiring:

- PhD in Mathematics or CS
- 3-5 years industry experience
- Strong programming

Example 2: Match.com

Match.com is hiring a Data Scientist to optimize advertising revenue across their portfolio of flagship brands. Requiring:

- Degree in an analytic field, like Computer Science or Mathematics
- Experience with statistical techniques and modeling
- Passion for advertising

Example 3: Booz Allen Hamilton

Booz Allen Hamilton is hiring a Data Scientist to create big-data-driven analysis of client performance against strategic goals. Requiring

- 1+ years experience of data mining
- Knowledge of Big Data programming technologies
- Physics/Math/CS Undergrad

How to take action now!

So, your turn! For the job posting you selected, first complete the following ... remember, you're looking for a crisp phrase (not a paragraph long sentence!). Jot them down in the same file so everything's together.

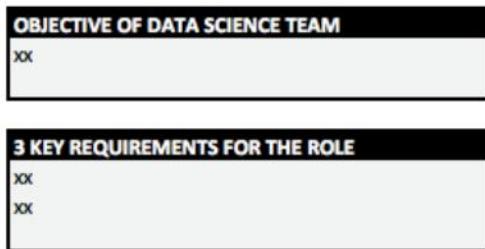
Objective: [Company X] is hiring a [xxx] to [xxx].

And then move on to the 3 key requirements that jump out at you.

[Key Job Requirement 1]

[Key Job Requirement 2]

[Key Job Requirement 3]



You should already be getting a sense of how this will help tailor and focus your resume, but more to come on that! For now, keep your work as we'll come back to it (and build upon it) in the upcoming sections.

2.2 How to Research Key Issues Facing the Company

Moving beyond just dissecting the Job Description, your application (resume and cover letter) will be much stronger if you have a grasp of the key issues facing the company. You'd be amazed how often this is neglected, and how impactful it can be if a candidate shows an understanding of the challenges the Data Science team could be asked to tackle. The Objective statement you wrote down in Step 2.1 gives you a start, but without the broader company context its not clear exactly what you'll be solving for, or why.

Take the Match.com job posting we were looking at in Step 2.1. We pulled out the Objective of the Data Science team as “optimize advertising revenue across their portfolio of flagship brands”. However, this leaves many open questions, for example

- Are these sites all growing their user base? If so, which are growing fastest? Are some in decline? Optimizing advertising revenue in a high growth environment will look very different than if users are dropping or churning frequently (as the audience/reach you're selling to advertisers is dropping)
- Is the profile of the typical user changing (for example, are competitor sites disrupting the online dating market) so that the optimal advertiser set / advertising content is now different?

Now, if that seems like a lot of extra thinking, you're right. And the good news is you're not going to delve into tremendous depth on the company issues at the resume and cover letter stage (you'll do so more for interview preparation), but knowing enough to add specificity to your application (cover letter especially) is very helpful.

We'll get into how to tailor your content later in the Guide, so for now let's just focus on how to do the research on issues facing the company.

OK, so, given we're not going after that much depth right now, we recommend focusing on Google search, with 2 main paths

1. **The Company itself** [Note: use the “news” section of Google to search the Company name, so “match.com” in our example]
2. **The Industry** [Note: use basic Google search, entering the industry, so “online dating industry” in our example]

How to take action now!

Let's do this now for the company you used in the previous section. Open one tab for the company search; one for industry. Glance through the links returned in each and open/read those that look most helpful. Your process should then be as follows

- 1) Pull out 2-3 factoids from the company search
- 2) Pull out 2-3 factoids from the industry search
- 3) For each factoid, think through the implication for the team

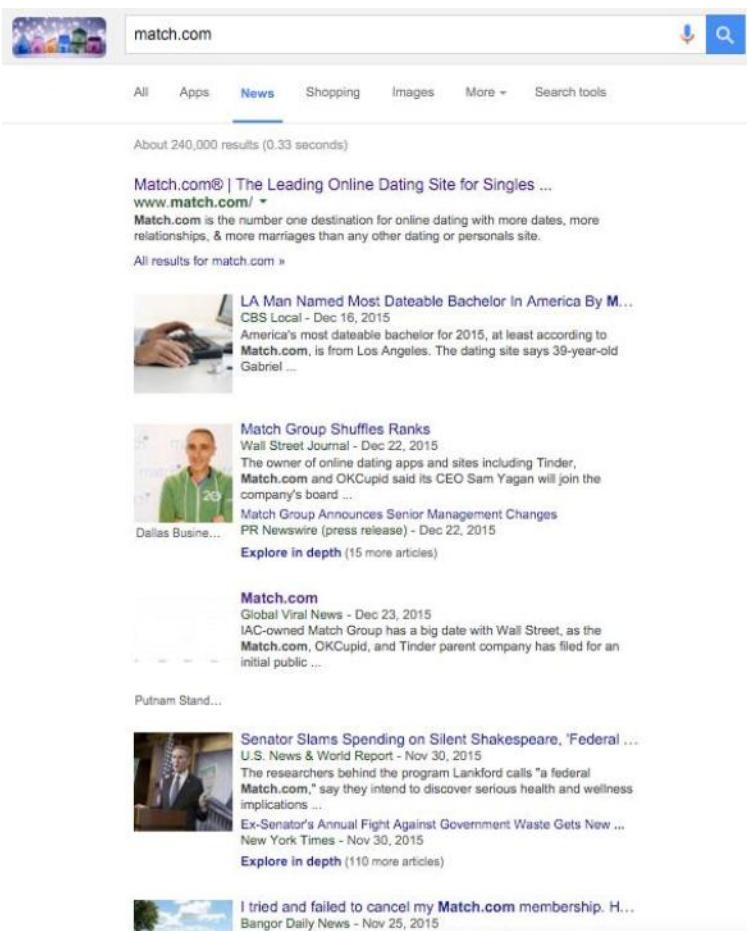
You can again take note of all of this in the Worksheets file (sheet 2.2)

COMPANY	IMPLICATION FOR DATA SCIENCE TEAM OBJECTIVE (for each factoid)
1-3 factoids	xxx
xxx	xxx
xxx	xxx
xxx	xxx

INDUSTRY	IMPLICATION FOR DATA SCIENCE TEAM OBJECTIVE (for each factoid)
1-3 factoids	xxx
xxx	xxx
xxx	xxx
xxx	xxx

To help, let's go back to the Match.com example...

I) Factoids on The Company Itself:



The screenshot shows a search results page for "match.com" on a web browser. The top navigation bar includes links for All, Apps, News (which is selected), Shopping, Images, More, and Search tools. Below the navigation, it says "About 240,000 results (0.33 seconds)".

The main content area displays several news articles:

- LA Man Named Most Dateable Bachelor In America By M...**
CBS Local - Dec 16, 2015
America's most dateable bachelor for 2015, at least according to Match.com, is from Los Angeles. The dating site says 39-year-old Gabriel ...
- Match Group Shuffles Ranks**
Wall Street Journal - Dec 22, 2015
The owner of online dating apps and sites including Tinder, Match.com and OKCupid said its CEO Sam Yagan will join the company's board ...
- Match Group Announces Senior Management Changes**
PR Newswire (press release) - Dec 22, 2015
[Explore in depth](#) (15 more articles)
- Match.com**
Global Viral News - Dec 23, 2015
IAC-owned Match Group has a big date with Wall Street, as the Match.com, OKCupid, and Tinder parent company has filed for an initial public ...
- Putnam Stand...**
- Senator Slams Spending on Silent Shakespeare, 'Federal ...**
U.S. News & World Report - Nov 30, 2015
The researchers behind the program Lankford calls "a federal Match.com," say they intend to discover serious health and wellness implications ...
- Ex-Senator's Annual Fight Against Government Waste Gets New ...**
New York Times - Nov 30, 2015
[Explore in depth](#) (110 more articles)
- I tried and failed to cancel my Match.com membership. H...**
Bangor Daily News - Nov 25, 2015

December 14, 2015, 10:59 A.M. ET

Match Group Slips: Underwriters Mostly Endorse, But Goldman Sees Scale Limits

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By Tiernan Ray

Shares of online dating purveyors Match Group ([MTCH](#)) are down 33 cents, or 2%, at \$13.51, as underwriters of [its November 19th initial public offering](#), with the majority of firms positive, but **Goldman Sachs** starting the stock at a Sell.

The price is still above the \$12 offer price of the deal, but below the \$14.74 close of the first day of trading.

Goldman's Heath Terry gives the stock a \$12 price target, writing that "ultimately we believe dating as a category has natural scale limitations that drive fragmentation over time, and in our view Match Group's growth reflects that."

Terry notes that Match's growth in the last four years, with an addition of 51 million users, on a net basis, came mostly from **Tinder**, the mobile app that Match uses for a younger demographic, bringing in 24 million users; and from acquisitions, bringing in 22 million. This is against "organic growth of just 4 million users in that time."

Among those initiating today is **John Blackledge** with **Cowen & Co.**, who reiterates an Outperform rating, and an \$18 price target, writing that the company is "the global Dating leader, a large market with positive secular growth trends."

He notes that the focus is justifiably on Tinder

"Tinder is a key growth driver for Match accounting for ~6% of Dating revenue in '15 but forecast to rise to ~22% by '20. Additionally, there could be upside to forecasts depending on product, execution and advertising contribution."

On the other hand, investors are worried about the "core Match" business outside Tinder. He expects the company to improve the rate of sign-ups that leads to paying users:

Many investors are rightly focused on the trends at Core Match. As the industry shifts to Mobile sign-ups, usage and payments, Core Match NA, led by flagship site Match.com incurred sub losses in 2Q15 and 3Q15. At present, users are not converting to paid subs via mobile channels (mobile app or mobile browser) at the same rate as desktop. In our assessment, for Match.com, it takes roughly 15 minutes to subscribe via a mobile device, which is a clear friction point. However, we think these concerns are solvable. For example, we expect Match to reduce the time to subscribe by 50% by the end of 2015. The other commonly discussed pressure point on subs for Match.com is cannibalization from Tinder, but given limited overlap between the user bases, we think this risk is overblown.

Just by googling Match.com within “news”, we’re able to find articles on the first page of results that tell us

- The company recently IPO’d
- Tinder is a key revenue growth driver, but is cannibalizing other Match.com sites
- Industry is shifting towards mobile away from desktop

2) Factoids on The Industry:

The screenshot shows a Google search results page with the query "online dating industry". The results are filtered under the "All" tab. The top result is a news article from The Fiscal Times titled "How Online Dating Became a \$2 Billion Industry". Below it is a research report from IBISWorld titled "Dating Services in the US Market Research". Further down are articles from The Washington Post and MarketWatch discussing the industry's growth and competition between Tinder and eHarmony.

online dating industry

All News Images Videos Shopping More Search tools

About 24,900,000 results (0.49 seconds)

How Online Dating Became a \$2 Billion Industry. - The ...
www.thefiscaltimes.com/.../Valentines-Day-2014-How-... ▾ The Fiscal Times ▾
 Feb 14, 2014 - These days, online dating makes it easier than ever to find your "lil." ...
 Thanks to the growth of such sites, the industry has expanded at 3.5 percent a year since 2008--right through the recession--to become a \$2.1 billion powerhouse. ... Target marketing, changing demographics ...

Dating Services in the US Market Research | IBISWorld
www.ibisworld.com/industry/default.aspx?indid=1723 ▾
 The proliferation of broadband internet connections and greater legitimacy surrounding online dating has helped the industry outpace the overall economy and ...

A Business of Love: Online Dating by The Numbers
visualeconomics.creditloan.com/a-business-of-love-online-dating-by-the... ▾
 Online dating has become a serious industry, and it's constantly growing!

Online dating's age wars: Inside Tinder and eHarmony's ...
<https://www.washingtonpost.com/.../online-datings-ag...> ▾ The Washington Post ▾
 Apr 6, 2015 - America's \$2.2 billion online-dating industry has split into a battle of the ages, with Tinder aiming for young singles and eHarmony advertising ...

10 things dating sites won't tell you - MarketWatch
www.marketwatch.com/.../Personal-Finance/MarketWatch ▾
 Aug 19, 2015 - The dating industry is now worth about \$2.4 billion, with revenue split ... come as no surprise that as the popularity of online dating has risen, so ...

Online Dating Insider - Your #1 source for dating industry ...
<https://onlinedatingpost.com/> ▾
 I've always felt like a bit of an edgy ombudsman regarding the online dating industry. Terrible way to make a living though. Having a conscience and all, difficult ...

Again, from the first page of results (and not even clicking into the links) we can see that the Online Dating Industry

- Is growing 3.5% p.a. and now worth over \$2Bn
- Has split into a battle of the ages, Tinder for young singles; eHarmony for older users

3) Putting this in context for the Data Science team's objective ("optimize advertising revenue across their portfolio of flagship brands")

- The company recently IPO'd → financial results (hence ad revenues) will be under more public scrutiny
- Tinder is a key growth driver, but cannibalizing other Match.com sites → Advertising revenues may be dropping on some Match.com sites
- Industry is shifting towards mobile → advertising is harder on mobile, will be a challenge to drive non-invasive advertising that doesn't negatively impact user experience (and cause people to quit using the site)
- Industry is growing 3.5% p.a. and now worth over \$2Bn → advertising revenues should be increasing accordingly
- Industry has split into a battle of the ages, Tinder for young singles; eHarmony advertising aggressively for older cohorts → different sites will have different audiences to sell to advertisers (with different relative value attached)

OK, final step, now we need to pull all this insight together into a **one sentence synthesis of the high-level issues facing the company**. Not a summary (i.e., don't just tie all the statements together) but a sentence that weaves the issues together.

For example, for Match.com we could say:

Meet (or exceed) Wall Street expectations in the face of significant ad revenue headwinds (e.g., industry shift to mobile, cross-portfolio user cannibalization, aggressive eHarmony user acquisition).

How to take action now!

Now, your turn! This isn't easy, but remember there isn't one right answer. The key is that you've spent some time digging into the issues and have an informed point of view - and something insightful to say in your application (we'll show how to apply it to your cover letter in Step 8). For now, note down your synthesis sentence in the Worksheet file.

Just think, most of your competition will not have invested the effort to understand how the Data Science team will be impacted by the broader issues facing the company (or at least not in a structured way).

You're already a step ahead :)

2.3 What Are Data Scientists Doing There Today?

The next step to reading the Hiring Manager's mind is to understand what Data Scientists are doing at the company today. This can help inform both

- A. Skills and elements of your background that are a very good fit with the current team – and hence need to come through in your resume (after all, it is well-known human behavioral psychology that we tend to like people that are like ourselves).
- B. Priority project areas to mention for why the company interests you and how you can add value (so you sound informed!)

Makes sense ... But where to start? Let's break it down into smaller steps.

- 1) Locate Data Scientists at Company X
- 2) Research what Data Scientists at Company X are working on
- 3) Figure out what all the data means

Ok, let's get to it!

I) Locate Data Scientists at Company X:

First, we need to find the names of Data Scientists at Company X. You can also look for Data Scientists who used to work there (but left recently) as their skills and education will still be relevant for this exercise, and will give you a larger sample size :)

How to take action now!

Here's how to go about it. Note we strongly recommend googling specific site domains versus broad google search as the latter often doesn't get deep enough into the most helpful spots for what you'll need here. As with the prior sections, you can note down all your work, this time use the Step 2.3a tab in the Worksheets file:

Data Scientists At Company X			
	Name	Found via (select)	Profile URL (if relevant)
1	XX	LinkedIn	
2	XX		
3	XX		
4	XX		
5	XX		
6	XX		
7	XX		
8	XX		
9	XX		
10	XX		

- I. **Google “Data Scientist [Company X] site:LinkedIn.com”.** Look through the results. Write down any of the names that are in the company and location you're applying to (or per the above, have recent past experience at the company). Also save down the URL of the person's LinkedIn profile as you'll need this later.

- II. **Google “Data Scientist [Company X] site:twitter.com”.** Look through the results and click into the profiles/tweets that look most promising. Does anyone list themselves as a Data Scientist at the company?

- III. **Review the Company website, especially the About page.**
Are team members listed? Is there a Data Scientist on there (more likely for smaller companies, but worth a shot)?

- IV. **Google “Data Scientist [Company X] site:meetup.com”.**
Given so many Data related meetups exist, there's a high chance someone from the team will be attending local events and adding employment details to their public profile. Also save down the URL of the person's LinkedIn profile as you'll need this later.

- V. **Search on LinkedIn.com “Data Scientist [Company X]”.** This website is generally the best for direct searching, so it may surface results, especially prior Data Scientists at the company

2) Analyze what Data Scientists at Company X are working on:

The above should have generated a list of at least one Data Scientist at the company (assuming there's someone in the team right now and you won't be the first hire!). Next we need to start digging in to what these people are working on and what tools, techniques, software etc. they are using; their academic/work backgrounds; personal projects etc.

Let's break this down into distinct buckets so we can keep things organized. See Step 2.3b in the Worksheets file for the template to use.

Name:	Data Scientist 1 <i>e.g., John Smith</i>	Data Scientist 2
Work at Company X		
Work Project 1 (title, description, impact etc.)		
Work Project 2:		
Work Project 3:		
Skills & Technologies		
Machine Learning Techniques:		
Statistics Techniques:		
Programming Languages/Libraries:		
Software:		
Other:		
Education		
Undergrad degree:		
Masters degree:		
PhD:		
Publications		
Thesis:		
Academic Papers:		
Articles:		

With the names and our template ready, we can set about filling in the information. Now, you likely won't be able to complete all fields for everyone (and that's ok). However, capturing as much information as you can will not only help for the resume, it will be critical for the cover letter (see Step 8 of the Guide) as well as in interview preparation, so it is time very well spent :)

So, where to look? The good news is that a couple of the searches you conducted above should get you a long way there - specifically

- **LinkedIn profile.** The Summary section often highlights key projects, education skills etc. Moreover, there is also usually a very helpful amount of information throughout the profile. People often detail projects they've done at each employer; nearly every profile has the Skills section showing what they've been endorsed for; and Education is practically always listed
- **Meetup.com profile.** This is more variable, though can often give good insight on what projects the person's been working on (at work and/or independently) as well as languages, techniques etc. that they're proficient in

In addition, it is also worth looking for

- **Personal page / technical blog.** This will often be listed on LinkedIn or Twitter (or try googling the person individually)
- **GitHub account.** Again, often listed on LinkedIn, or you can try searching on GitHub (use the google domain search so “[name] site:github.com”)
- **SlideShare.** This can be a good avenue for finding presentations on the team's work - use “[name] site:slideshare.com” to search

Try to do this for at least 3 members of the team. If you can't find that many (or there aren't that many!), no worries, but getting to ~3 will start to show if there are any consistencies (or not) in terms of background, skills, work projects etc.

3) Figure out What All the Data Means:

You should by now have several cells full of information. Now we need to make sense of it. Let's do this in 2 ways (using worksheet Step 2.3c)

Word Clouding	
Most prominent words	
1	xx
2	xx
3	xx
4	xx
5	xx
6	xx
7	xx
8	xx
9	xx
10	xx

Similarities across the team	
3 observations	
XXX	
XXX	
XXX	

5 KEY REQUIREMENTS FOR THE ROLE	
XX	
XX	
XX	
XX	

How to take action now!

- a) Write down 3 similarities you can pull out across team members
- b) Put all the text into a word cloud like we did for the job description itself ... write down the 10 most prominent words

Now, armed with both of these, have a think... **What 5 requirements do you take away as being critical to join the team?** These could be specific Education, Skills (Programming Languages, Statistical Techniques, Software Packages, Softer Skills), Experience etc.

Write them down in the Worksheet - we'll come back to this shortly...

Note: In case it is helpful, here is what we came up with after doing the above exercise for the Match.com job position we were working with in Steps 2.1 and 2.2:

Education: Engineering

Skills: Analytics, Statistical Modeling, R, SQL

Experience: [Nothing from this research – work backgrounds varied]

2.4 How to Assess the Hiring Manager's Real HOPES

It's time to pull together everything that we've researched in this section into a coherent framework that helps you understand the critical job requirements - and, in doing so, read the Hiring Manager's mind!

To do this we suggest using our proprietary framework to structure your thinking and identify the **Hiring Manager's HOPES**. "What's that?" you ask? Simply put, each letter helps you understand something different about the role - and what your application needs to relate to.

Specifically, the HOPES framework represents

H - High-Level Issues facing the Company

O - Objective of the Data Science Team

P - Professional Skills

E - Education & Experience

S - Softer Skills

And there's good news :) You've already done most of the work over the past few sections. Now we'll be using it!

As we guide you through how to complete the HOPES framework we'll follow along with the Match.com example.

How to take action now!

Refer to the Worksheet called Step 2.4, with H, O, P, E, S down the left.

Let's get started ... If you go back to the exercise you did in Step 2.2, you already have a summary of the High-Level Issues facing the Company. Jot that down against the letter "H"

So, for the Matched.com Example

H - Meet (or exceed) Wall Street expectations in the face of significant ad revenue headwinds (e.g., industry shift to mobile, cross-portfolio user cannibalization, aggressive eHarmony user acquisition).

Next, revisit the exercise from Step 2.1, and you have a draft version of the “Objective”. Go ahead and fill that in.

So, for the Matched.com Example

O - Optimize advertising revenue across their portfolio of flagship brands

Similarly, from that first exercise (Step 2.1), you have an initial draft of the key requirements – likely a blend of the “P”, “E” and “S”. Go ahead and slot in the 3 requirements you pulled out against the relevant letter.

You should also have further insights from the notes you took in Step 2.3 so put those against the appropriate letter to. The Match.com example is below. The mind-reading is taking shape :)

So, for the Matched.com Example

P - Experience with Analytics, Statistical techniques and modeling, R, SQL

E - Degree in an analytic field, like CS or Math or Engineering

S - Passion for advertising

Ok, (potentially) slightly harder step... the “S”. You may well find this is blank (it is initially for lots of people). So, take another look through all your notes to see if there is something that stands out on this front (for example, did one person’s profile mention something in their description of the work?). Also, step-back yourself and think about the role and what it would be like to be on the team day-to-day... What are 1-2 softer skills that you think will be critical to succeeding? Add these in!

So, for the Matched.com Example

S - Passion for advertising, Collaboration (Product Managers, Ad contacts)

Now, final step ... do one last read-through of the Job Posting. Is there anything on there that you feel is critical and missed from the HOPES you've identified? If so, add it, but keep the bar high! The whole purpose of this exercise is to tease out the really salient requirements and insights about the role/company that you will then use to either (a) tailor your resume or (b) inform your cover letter as we move through this Guide.

Here's our final version of the Matched.com example.

H - Meet (or exceed) Wall Street expectations in the face of significant ad revenue headwinds (e.g., industry shift to mobile, cross-portfolio user cannibalization, aggressive eHarmony user acquisition).

O - Optimize advertising revenue across their portfolio of flagship brands

P - Experience with Analytics, Statistical techniques and modeling, R, SQL

E - Degree in an analytic field, like CS or Math or Engineering

S - Passion for advertising, Collaboration, Excellent communicator

If you've been following along (doing your version of the Matched.com example) then compare yours to this and take a few minutes to reflect on similarities and differences. There is no one right answer - following the process and forcing a deeper level of thinking about the Hiring Manager's HOPES is the most important outcome!

You should also have completed this for one job posting that you've been working through. If not, finish it up now! Then step back. Compare what you have in the HOPES versus the original job posting.

- Which gives you more confidence to tailor your resume?
- Which gives you more insight to craft a cover letter?
- Which makes it clearer what skills really matter?
- Which guides you more on the keywords you need to hit?

- Which will help you focus on what the Hiring Manager really wants?

How does it feel to have read the Hiring Manager's mind?

You know the Hiring Manager's HOPES - now let's set about showcasing you as the stand-out candidate they're looking for :)

Onwards to Step 3 of the Guide – Identifying YOU as The Perfect Candidate!

STEP

3

STEP 3: Identifying YOU as The Perfect Candidate

3.1 How to Identify Your Complete Set of Strengths

Time to talk about YOU!

Your resume is your personal sales pitch - the document where you have to shine. As such, you need to be armed with as many illustrations (proof points) of your awesomeness as possible :) You can then pick-and-choose from these as you tailor your resume for different roles.

To do this, you'll need to think broadly - consider your entire life as the potential universe to pull examples from. If your annual family cook-off is the only place you've had a chance to demonstrate your fine leadership, no worries. New to the job market? You may well have less "traditional" examples, again - that's ok. The objective of this exercise is to consider all possible ways to convey what you do well / what you are capable of.

How to take action now!

Let's get to it ... Refer to Worksheet 3.1a, which lays out the grid you'll be completing. We'll be looking at all the potential areas where you could have demonstrated different skills or strengths. Note: this is more comprehensive a set of skills than any one job is ever likely to ask for - we're being more holistic so you can just build this **war-chest of Proof Points** once and then pull from it for different roles :)

	Technical Skills						
	Machine Learning Techniques:	Statistics Techniques:	Programming Languages/Libraries:	Software:	Data Mining:	Data Visualization:	Other:
Education							
Undergrad degree:							
Masters degree:							
PhD:							
Bootcamp:							
MOOCs:							
Experience							
Part time							
Intern							
Full time							
Academic Teaching							
Projects							
Independent Idea							
Coursework							
Competition							
Technical Blog							

Time to do some serious thinking - and remembering! We recommend going row by row, and for each of the rows that are relevant (recognizing this will likely just be a subset), read across the columns and put an "x" in the cell if it is a skill or strength you acquired and/or demonstrated in that activity. Go through the whole table doing this until you've filled out every row that's relevant to you.

Then, one more step ... for everywhere you have an "x", go back and replace it with a few words that describe what you did. You'll need this to build out the content on your resume, so why not get a head start now?!

Finally, let's tie this back to the HOPES framework from Step 2. For the application you're currently working on (and have HOPES identified for),

1. Look at out of all these potential proof-points
2. Identify which are the 5 strengths (and associated proof points) you most want to convey in your resume and cover letter

5 Strengths to Convey			
#	Strength	Proof Point	Resume Section
1	Leadership	University Data Science Club Leader	Education
2	xx	xx	xx
3	xx	xx	xx
4	xx	xx	xx
5	xx	xx	xx

- Jot them down in Worksheet 3.1b, along with which resume section they belong in, as you'll be referring back to this as you build out your resume content or edit it for a given role

3.2 How to Communicate Your Unique SPEC

You now have a comprehensive go-to list of all your Proof Points to pull from as you piece together your resume (thanks Step 3.1!).

Beyond that, you'll also need a summary (branding) statement that succinctly captures your "story". As we'll discuss in more detail later in the Guide, we don't recommend putting this explicitly on your resume - it should instead guide how you're thinking about the content you do share. We do however recommend including it as part of your cover letter content (see Step 8 for how to weave it in).

How to craft your Summary statement? The key is thinking at a slightly higher level. Specifically, here's a technique and framework that can help...

Imagine you're writing a punchy newspaper-style sentence that summarizes *you*. Keep it simple yet compelling. Just one sentence! What's most interesting about you? (That a Hiring Manager cares about!).

We're going to use a proprietary framework to find **your unique SPEC**, where SPEC refers to your:

Skills: From broader (e.g., distilling insights from data) to moderately technical (e.g., strong foundation in NLP & Statistics) to very technical (e.g., focused on Latent Dirichlet Allocation, Bayesian non-parameterics and related topic models)

Professional Experience: How long you've worked in the area; Number of Projects; Awards or Recognition etc.

Characteristics e.g., passionate statistician, thrive on solving complex analytical problems etc.

How to take action now!

First jot down 5 or 6 ideas of what you'd want to include (in Worksheet Step 3.2). Interesting things about you! 1-2 against each element of SPEC.

SPEC FRAMEWORK	
S	
P	
E	
C	

SUMMARY STATEMENT	
XXX	

Armed with those ideas, take a first pass at a Summary statement. Struggling? It's not easy, but with a bit of iteration you'll get there. In case it helps get your creative juices flowing, here is a range of examples

- *I am a data scientist and full-stack software engineer dedicated to solving challenging human problems through technology.*
- *I am passionate about Python, natural language processing, machine learning, data visualization and more broadly, telling stories with data.*
- *Pragmatic and Detail Oriented Statistician with experience in Applied Statistics, Machine Learning and Attribution Modeling.*
- *Quant undergrad with passion for predictive modeling and scrappy start-up environments*
- *I have over 5 years experience applying statistical techniques to solve complex behavioral problems - and presenting results to executives*
- *I am an Engineering PhD interested in the intersection of mathematics, large systems and consumer products.*

Now, re-read yours. Ask yourself:

- Is every word geared to this specific Hiring Manager?
- Is it “fluff”-free?
- If you were hiring, would you be excited about this candidate?

If the answer to any of the above is “no”, do another pass - remember, you’re aiming for *punchy* newspaper style copy, not a long rambling sentence! Once you’re comfortable, save it down, you’ll need it in Step 8!

Onwards to Step 4 of the Guide – Making Your Resume Look the Part!

STEP

4

STEP 4: Making Your Resume Look The Part

4.1 What Sections To Include (And Not)

Wondering what needs be on your Data Science Resume? Spending a lot of time scouring resume advice sites but not finding anything specific to Data Science? It is hard, time consuming, and frustrating trying to figure out what Sections should be on your resume. Of course, it is not just the Sections that matter - the content in them is important too! We'll help with that as we get further along. For now, let's cover off what Sections you should include (and what not to include!).

Sections To Include

We recommend including the following, with the order subject to your circumstances (more to come on that in Step 4.2)

- **Education:** Details of your undergrad and grad (if relevant) degrees, making sure to demonstrate both academic and extracurricular achievements. You should also be listing relevant courses you've taken as part of your degrees in this section (we suggest limiting this to ~5 so it doesn't dominate the page!). The Education section is also where you can include any self-study

courses you have completed (e.g., Coursera, MOOCs etc.) as well as Boot-Camp type training you may have attended (e.g., Insight, Metis, SlideRule, Galvanize, etc.)

- **Experience:** Highlights of your work and accomplishments at your current and *relevant* prior roles. All of these should be written in the past tense (yes, even the current role), and with punchy, action/accomplishment-oriented language.
- **Skills:** Summary of the programming languages, statistical techniques, machine learning skills, software packages etc. that you're comfortable using. This should be tailored to the job role in question - you don't need to list everything, focus it based on what they're looking for - and also make sure it is a true reflection of your skills, which should mean you have used the language, technique etc. in at least one personal or work project (not just that you've read about it or been exposed to it)
- **Projects (& Publications / Presentations):** Showcase of your Data Science work outside of academic and/or work environments. For example, competition projects you've completed, independently-driven project ideas you've worked on, presentations you've made (e.g., at Meetups or conferences), your thesis and/or other publications (e.g., articles, books)
- **Hobbies & Interests:** Only include this section if
 - a. You make it specific such that it conveys something about yourself - for example, don't say "like to travel" which could just mean you like taking vacation (who doesn't?!) but "travelled to x countries, learnt y languages, organized group trip etc." all of which give much more of a sense of your curiosity, determination, leadership etc.
 - b. You have the sense from networking / interactions with the company you're applying to, that they value some of the softer skills. If they do then great, putting a couple of specific interests can be a great way to showcase more of your skill

set and start a broader conversation. If your sense is the Hiring Manager is very technically focused or would view this section as "fluff" then dedicating valuable real estate (remember - you just have one page!) to this content is likely not a good investment

Sections To NOT Include

We recommend not including the following

- **Summary:** You should definitely spend the time thinking very carefully about your summary statement (as we did in Step 3.2) BUT you should use it in your cover letter; NOT in your resume. Use space on your resume to detail your education, skills, experiences etc. You likely have way more to say here than you can get on one page anyway, so you'll need the room. Especially if you really think broadly about what the Hiring Manager is looking for and what you've accomplished that matches up.
- **Objective:** Worse still is an Objective on your resume. Don't do it! Your resume should be geared towards convincing the Hiring Manager you're the right person for the role; not telling them you want a job!
- **Awards & Recognition:** We'd suggest making sure these points come out in the relevant Section versus having a distinct area dedicated to it. For example, Academic awards, scholarships etc. are best highlighted in the Education section; Data Science competition awards/prizes (e.g., Kaggle, Data Hackathons etc.) as well as Open Source contributions should be covered in Projects; Industry awards should be paired with either the relevant Work Experience or Independent Project that earned it
- **References:** If these are needed, you'll be asked, and likely much further into the interview process, so no need to include them
- **Photo:** Some people do, but trust us, it really doesn't help!

How to take action now!

Open up your resume and take a look at the Sections you have (or don't have) relative to this list. Then, do some re-arranging! The likelihood is that you have a lot of the right content but potentially slightly mis-bucketed (i.e., under a different Section structure), so moving it around to put against these headings instead should be relatively straight-forward - and make it crisper. Also, if you have anything that would be on our "don't include" list, we'd recommend taking it off now :)

4.2 How to Order Your Resume (Case-Specific)

Research shows that for every interview granted, many tens (or even hundreds) of resumes are discarded. Research also tells us that your resume will likely be quickly read versus deeply pondered. As such, what you lead with matters!

You now know (from Step 4.1) what Sections you need (and don't!), but how do you order them? How do you put your best foot forward? How do you make sure relevant strengths hit the reader first? How do you effectively "bury" (but not misrepresent) weaknesses?

First, some simple rules of thumb; then we'll get into some specific examples, though PLEASE NOTE everyone has unique circumstances so if you feel especially proud of a section we're suggesting go lower down your resume, then definitely go with your gut-instinct rather than these more generalized case examples.

Simple Rules of Thumb

- Lead with what you're most proud (best content first!)
- Less impressive sections should be further down the page
- Education first if you have
 - a) More than just an undergrad degree and/or
 - b) Especially relevant field of study (e.g., Math, CS, Statistics)

Case Specific Resume Order

1. PhD (Quant), coming from Academia

- Education
- Skills & Technologies
- Projects & Publications
- Experience (if relevant work experience, move above Projects)

2. PhD (non-Quant), coming from Academia

- Education
- Skills & Technologies
- Projects & Publications
- Experience (if relevant work experience, move above Projects)

3. Undergrad (Quant)

- Education
- Skills & Technologies
- Projects & Publications
- Experience

4. Undergrad (NonQuant)

- Skills & Technologies
- Projects & Publications
- Education
- Experience

5. Data Analyst, with PhD

- Education
- Experience
- Skills & Technologies
- Projects & Publications

6. Data Analyst, without PhD

- Experience
- Skills & Technologies
- Projects & Publications
- Education

7. Software Engineer / Programmer, with PhD

- Education
- Experience
- Skills & Technologies
- Projects & Publications

8. Software Engineer / Programmer, without PhD

- Experience
- Skills & Technologies

- Projects & Publications
- Education

9. Other Career Switcher, with PhD

- Education
- Experience
- Skills & Technologies
- Projects & Publications

10. Other Career Switcher, without PhD

- Experience
- Skills & Technologies
- Projects & Publications
- Education

4.3 How to Improve Your Resume Format

The formatting and layout of your resume can make as much of an impact as the content itself. Poorly formatted resumes don't even get read; they get judged and immediately discarded. Don't let that happen to you.

Your resume only gets a very short amount of time to make an impression with the Hiring Manager. To make a positive impression, the content must be clearly decipherable and not lost amidst crappy and/or over-complicated formatting. How well your resume is formatted says a lot about your communication style and attention to detail. While it can be a pain to get it right, it is worth the effort. Now, of course you also need great content, but we'll help with that shortly :)

Good News! ... You are applying to Data Science roles, not to be a Designer. As such, choices on layout, white space balance, font, colors, left/right/center alignment etc. can be left to someone else - give yourself a break on something!

There are several places online where you can find good (and free) templates to choose between - for example [here](#) or [here](#). You can also just Google image search "resume template" and find more than you'd ever want to choose between! If you have some experience / programming expertise you can also create a resume with LaTeX and the [currvita package](#). We've had several candidates say that they found this

- Easy (and it looks good)
- Helpful for organization as the LaTeX source "plays nice" with Git, so you can keep track of tailored resumes for each job posting
- Good conversation starter!

Note: We don't agree with the ordering / sections included on some of these – defer to Step 4.2 for best practice on that front - but from a format point of view, they'll be a help.

In case this is not enough - or you really just want to be sure you're using something appropriate - we've designed 2 templates for you, which you can download by clicking on them. How's that for making your life easier!

- [Template 1](#)
- [Template 2](#)

We've also pasted the first one on the next page so you have a visual to refer back to.

(Note: don't worry if some of the acronyms don't make sense right now – we'll explain them in the upcoming relevant Steps).

MY NAME

xxx@gmail.com | <http://mytechnicalblog.com> | github.com/name
+1 000 000 0000

Education**GRAD SCHOOL (if relevant; or online self-study; or boot-camp etc.)**

Degree

Location
20XX – 20YY

- Accomplishment 1 (Academic e.g., Grades, Thesis, Scholarships, Awards etc.)
- Relevant Courses/Coursework [list out; max 5]
- Accomplishment 2 (Extra-Curricular)

UNDERGRAD SCHOOL

Degree

Location
20XX – 20YY

- Accomplishment 1 (Academic e.g., Grades/GPA, Scholarships, Awards etc.)
- Relevant Courses/Coursework [list out; max 5]
- Accomplishment 2 (Extra-Curricular)

Experience**Most Recent Employer***Industry / description of company (max 5 words (e.g., AdTech))*Location
Current**Your Role/Title**

- SMART bullet 1
- SMART bullet 2
- SMART bullet 3

Next Most Recent Employer*Industry / description of company (max 5 words (e.g., Hedge Fund))*Location
20XX – 20YY**Your Role/Title**

- SMART bullet 1
- SMART bullet 2
- SMART bullet 3

Skills & Technologies

- Machine Learning: List relevant e.g., Clustering, Anomaly Detection, Supervised Learning
- Statistical Methods: List relevant e.g., Logistic & linear regression, k-NN, PCA
- Software & Programming Languages: List relevant e.g., Python (sci-kit learn, pandas), R, SQL

Projects & Publications**Project 1 Name:** Objective & Motivation

20XX

*URL link to Github profile with ReadMe file for code and write-up***Your Role**

- Data: Data set size, skew, mining approach etc.
- Models: Specify models and stats techniques used; programming languages & libraries etc.
- Results: Demonstrate outcome, ideally with numerical impact

Project 2 Name: Objective & Motivation

20XX

*URL link to Github profile with ReadMe file for code and write-up***Your Role**

- Data: Data set size, skew, mining approach etc.
- Models: Specify models and stats techniques used; programming languages & libraries etc.
- Results: Demonstrate outcome, ideally with numerical impact

How to take action now!

If you've been worried about your resume format - after all, it does send a message on your ability to communicate; and can either help or hinder great content - then take a look through a few different examples. You can either follow one verbatim or just use them as a guideline / inspiration for how to clean yours up a little :)

4.4 Top 10 Formatting FAQs

Wait, there's more :) Even when you're following a template - either verbatim or as a guideline - we still see many formatting questions, so have compiled a Top 10 FAQ list to help you avoid common pitfalls.

Q1. How long should my resume be?

A. One (!) page maximum. (There is a rule of thumb out there of 1 page per 10 years of experience, but frankly we'd still recommend keeping to one page even if you have that much experience. If you can't tell your story clearly on one page, then you're not focusing on the right details).

Q2. What contact details should I include?

A. You want to minimize how much space you're losing to this information, so keep it brief - and neatly organized. Email address is a must have - and ideally a Gmail one, or a very clean address (not a bunch of numbers and random letters that could easily be mis-typed!); phone number is recommended though you don't have to if you'd prefer not to have a random call when you're not ready for it; a mailing address is not necessary and can often take up a lot of real-estate on the page, so best left for the cover letter. Note: you don't have to put the sub-title "email" or "phone" - it is very obvious what they each are :) What you also must include at the top of your resume is a GitHub page link or technical blog link - it is a strong signal from the outset that you are a bona fide candidate, and that you're confident enough to share your work/code

Q3. Are bullet points ok?

A. Yes, absolutely - and in many instances they can really help make your communication succinct and easier to (skim) read. Long sentences can be hard to digest quickly and Hiring Manager's are often pressed for time. In the Experiences Section (Step 6) we'll discuss the most effective way to write bullet points to convey your story / strengths. That said, only use bullet points if you have more than one point (i.e., a list) - don't just have one bullet point in a section!

Q4. Where should I put the dates?

A. Dates should always be right-aligned so they can be read off easily down that side of the page. Another thing to note is to use En Dashes rather than hyphens between dates ([this article](#) gives more details).

Q5. What tense should I be writing in?

A. Past tense for everything; even your current role.

Q6. Should I use different font sizes to break it up?

A. Yes, this is helpful, though don't go crazy with it! Your name should be the largest text on your resume, so solve for that first to make it stand out. Beyond that, section headers can be slightly larger font (and bolder) than the content beneath them to make them stand out.

Q7. Should I use color-coding to differentiate between sections?

A. No. In fact, no color-coding anywhere - it is a distraction rather than an aid to the reader.

Q8. What are the best fonts to use on a resume?

A. We'll defer to a couple of articles on this one... according to

- [Business News Daily](#): Arial, Georgia, Calibri, Garamond or Times New Roman, Trebuchet MS

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- [Huffington Post](#): Calibri, Helvetica, Georgia, Arial, Garamond

Q9. Can I use a table to organize a section or should it be line text?

A. Tables can be a very effective way to organize a section, especially Skills when you likely have a lot of one or two word items to catalog. In fact, multiple columns can eliminate otherwise wasted white space and also make skimming/scanning easier for the Hiring Manager. Just be sure to organize/structure the table in a sensible manner (e.g., in Skills, you could have columns for Software, Languages, Statistical Techniques, Machine Learning etc.)

Q10. What format should I send the resume in?

A. Always pdf. Most easily scalable for the recipient, and can't be accidentally edited!

How to take action now!

Take a run through your resume, relative to the above – tidying up as appropriate! Then you'll be ready to start on the content itself ...

Onwards to Step 5 of the Guide – Doing Your Skills Justice!

STEP

5

STEP 5: Doing Your Skills Justice

5.1 3 Principles for How to Structure the Skills Section

It is important to provide structure to the Skills Section. Rather than sharing a long list of skills that is hard for a Hiring Manager to decipher quickly, make it easy for the Hiring Manager to understand your skills. Being creative with how you lay it out can also help you save space on your resume for other pieces of your story. As such, we favor using a table (or at minimum structured bullet points) to highlight your technical proficiencies, as you saw in the two templates we provided (Step 4.3)

That said, this is an area where it is hard to be totally prescriptive as a lot depends on your relative strengths and the role requirements. For example, you wouldn't keep Machine Learning techniques first in the table/list if this is your weakest area and/or least relevant for the role. Similarly, if the Job Description referred a lot to "Analytics" you may want to replace the "Statistical Methods" heading with "Analytical Methods"

With all that in mind, the 3 most important principles to apply are

1. Use a clear, mutually exclusive structure (discrete sub-sections)
2. Make the sub-section headings relevant to role (name and order)

3. Make the sub-section order play to your strengths

How to take action now!

Take the job application you're currently working on. Think through the above... What are the right sub-section headings for the Skills Section? How should you order them to reflect your relevant strengths?

Fill these in on your resume!

5.2 How to Identify What Skills To List (and Not List)

The Skills Section is critical for a technical role such as Data Scientist (or Data Analyst, Data Engineer, Machine Learning Engineer, etc.). It is also one of the sections where you need to pay most attention to hitting the keywords and key requirements of the role (refer back to the HOPES framework you thought through in Step 2.4; and the Proof Points you identified in Step 3.1).

If you don't have at least some of the right technical skills, then you're going to struggle to convince the Hiring Manager that you're the right person for the role. At the same time, you don't want to include everything they're looking for, as that becomes a spammy-looking long list and most likely very unrealistic! There's nothing Hiring Manager's hate more than obvious keyword-stuffing - you need to be selective.

You also don't want to list everything you're proficient with for two reasons. One – that looks like you don't understand what the Hiring Manager is looking for (i.e., it is not tailored to the role). Which betrays the work you did upfront to figure out what the Hiring Manager is actually looking for. Two – if it's not necessary for the role, save the space for someone else that is valuable to communicate for the given role.

With that said, what should you include?

We recommend, in priority order, within each sub-section:

- Any language, tool, technique, software etc. which you pulled out in the HOPES framework AND you are proficient using
- Any language, tool, technique, software etc. which is mentioned elsewhere in the Job Posting AND you are proficient using
- Any language, tool, technique, software etc. you are proficient with and which is consistent with the Summary Statement you're making about yourself in the cover letter. For example, if you're calling yourself an "Experienced Data Analyst" then it is ok to add a couple of specific Database packages / data mining languages you're familiar with that may not be in the Job Posting
- General skills that have broad applicability (e.g., HTML, CSS, SQL)

Ok, one final watch-out! Proficient can be open to (mis)interpretation, so here are 2 good rules of thumb to apply to keep you honest :)

Only list technical skills that:

1. You would be comfortable digging into during an interview
2. You have actually used - in a work or personal environment. It is not enough to have just read through blog posts and/or some of the documentation; or just have seen it in action

How to take action now!

Fill in your Skills that pass through this filtering process into the Sub-Section structure you outlined in Step 5.1

5.3 Which Projects to include in the Projects Section

The importance of the Projects section will depend on your individual circumstance. The more relevant work experience you have that can showcase your skills / impact then listing a lot of independent projects is less critical. On the other hand, if you're light on formal work experience, showcasing your proactivity – and technical Proof Points – via Project work is hugely helpful (and frankly, a necessity!).

You can also use this section to include other non-work Proof Points of your expertise such as publications and/or presentations. These non-work Proof Points can be used to demonstrate a reasonable (or better!) level of comfort with a given language, technique, tool etc.

With that said, what should you include?

Any Project (Presentation, Publication) that involved you using skills you identified in the HOPES framework. You want to list them in the following priority order

- Project(s) where you received an award / recognition
- Project(s) where you generated the idea independently (i.e., you weren't relying on Kaggle or equivalent for the idea). Importantly, within this category, projects where you had to work end-to-end from data munging to analysis/model-building to results and conclusions are better than when the data is ready to go (cleaned) from the outset. These types of projects showcase a more holistic skill-set
- Project(s) which were coursework or specified competition project

You can also detail Projects (Presentations, Publications) that don't feature skills you pulled out in the HOPES framework if they demonstrate

- A major accomplishment

- An ability to learn a new skill quickly. This will provide comfort to the Hiring Manager that even if you don't know all the key skills for the job, you have a proven history proof of picking up new ones rapidly.

If you don't have significant (or any) work experience, you'll likely want to include 3 independent Projects outlined in detail (see Step 5.4 for how to describe the Project work). If you do have the Work Experience, then you're best off focusing time (and resume space!) there, and only including your most impactful / interesting personal project in this Section.

Note: If you have done a lot of Kaggle competitions and performed decently, you should put a link to your Kaggle profile at the end of the Projects section with a quick comment on the range of competitions / your performance, as that will be a further good proof-point

5.4 How to Describe Your Project Work

“I know project work is important to put on my resume, but I don’t know what (or how much) to write”

You've been told the Projects section is important to include on your resume, but the advice stopped there. You have limited Data Science work experience, so you are relying on your Projects to convey you can do the job. Sounds good – but what should you write?

At the highest level, you want to make sure that the Project sounds cool/interesting to someone with zero context and it is clear what you actually did (i.e., what were the different steps). Remember, the Hiring Manager has no idea what you've been working on, or why, so it has to grab their attention and be easy to comprehend.

With that in mind, here are some specific suggestions for how to describe each Project that you include on your Data Science resume:

- **Objective & Motivation:** What you were trying to do, and why
- **Role:** Make it clear if it is a personal Project or if you were part of a team. If personal give a sense of the effort (e.g. x hours / week outside of core curriculum) you put in; if part of a team clarify your responsibilities
- **Data:** Detail the approximate data set size and source how (e.g., software and techniques used) to store, extract and clean the data
- **Models:** Specify models and statistical techniques used, as well as programming languages and libraries used to construct them (paying particular attention here to the requirements noted on the job posting - the more you can cover off keywords/asks for the role the better!)
- **Code:** It is worth linking to your GitHub account to give the Hiring Manager the option to check out the code (plus it just makes it all the more credible that you've actually done the work!). A bonus option here is to also create a readme.md for the projects you're featuring on your resume - [this template](#) is a good example. Or, if you have your own technical blog, you can link to a (similarly structured) write-up there
- **Results:** Try whenever possible to demonstrate the outcome with numerical impact or significance (it pops off the resume more than a text-only sentence) and is an indicator of how impact-oriented (or not!) you are in your work

If you follow the above high-level and specific advice your Project work should start to work for you!

How to take action now!

You ultimately need to work your way through all of the above for each of the Projects you're listing (per Step 5.3). However, to break things down, let's start with the Objective & Motivation – and the “Elevator Pitch”.

Imagine you have 15 seconds in an elevator with the Hiring Manager to describe the Objective & Motivation for one of your projects - making it sound interesting and clear. Write down a version then say it out loud. Repeat until it is 15 seconds or under (likelihood is you'll be way over the time limit first time around! That's okay. Just try again!) Use this to complete the Objective & Motivation field when you add the Project on to your resume :)

That's one important content section figured out :) Congrats!

Onwards to Step 6 of the Guide – Making Your Experience Come To Life!

STEP

6

STEP 6: Making Your Experience Come to Life

6.1 What Experiences to List (and Not List)

The Experiences Section is the section where your bar for relevancy needs to be extremely high. Listing any/all prior Work Experience is not going to win over the typical Hiring Manager. In fact, listing everything you've done will detract from your resume and could get you in the "no" pile. You need to be thoughtful on what to include, and how much detail to share on each.

We recommend applying the following hierarchy for what to list (and not)

- You should definitely list any Work Experience that will allow you to showcase skill(s)/requirement(s) that you identified in the HOPES framework
- Beyond that, if you have Work Experiences in closely related roles (or at least data-oriented) then it is worth including those
- Include any Teaching roles you may have held while in Academia, especially if they were in a quantitative subject as it is good proof of your ability to not only use relevant concepts, but also explain them (which is often harder!)

- Next, any work in the same industry, even if not directly data-oriented could be helpful (for example, in the Match.com example we looked at in Step 2, advertising industry experience is cited as relevant, so it would make sense to include that)
- Only include a job in a totally unrelated industry if you are a career switcher. In this instance, its ok to have the job position on there, though be sure to focus on softer skills in the work description, as the “work” itself will be far less relevant
- Don’t include any Part Time / Student jobs (unless they hit on one of the criteria above) - it may be tempting if that’s all you have, but you are really better off focusing on other parts of the resume

6.2 How to Structure the Experiences Section

Within each Job, how should you lay things out? What should you include?

There are 3 key principles for how to structure the Experience Section

1. **Recency** - Reverse chronological order, to make sure your most recent experience is higher up on the page. If you had several positions with the same employer, break out those positions and accomplishments in reverse chronological order as well
2. **Project-based** - most companies divide Data Science work into projects, so separating your bullet points within any given job experience by project is easiest to digest (and will feel most familiar to the Hiring Manager)
3. **Impressiveness** - within each experience, list your major accomplishments before more minor ones (and exclude anything non-impressive!). Note: don’t confuse time-consuming activities with outcomes that had impact when assessing “impressiveness”!

The above also helps on what to include, though you should also keep in mind one overarching principle - credibility! Make sure you can tell a good truthful story about every experience you put down; it will be painful at an interview if you're asked about some awesome-sounding bullet point, only to find out that you spent about 15 minutes helping out on a related task!

Note: If the company you're showcasing experience at is not well known (or even if it is), it is worth a few words to describe the industry and/or function (e.g., Retail, Finance, Marketing Analytics etc.). You can see how we recommend formatting and slotting this in the example resume templates in Step 4.3.

6.3 Wowing the Hiring Manager with SMART bullets

The key to bringing your Experience to life is how you describe it. Obvious right? BUT ... How many of your bullet points read like a Job Description rather than conveying how you over-delivered against that very description? How many of your bullet points go beyond the "what" to showcase "how" you did something, and with what *impact*? This is your opportunity to really showcase results and accomplishments from your career to date. This should NOT be a job description; this should help you standout from the crowd. You have our full support and permission to make yourself sound incredibly awesome! Now we're going to show you how :)

The key is to write SMART bullet points. That is, bullet points that are:

- **S**pecific
- **M**easurable
- **A**ction-oriented
- **R**elevant
- **T**echnique-focused

Which, in practice, will very often mean writing the following type of bullet point – obviously switching up the verbs from one to the next!

“[Completed action X] delivering [impact of Y] by [technique Z]”

Where...

[Completed action X] must be **S**pecific and **A**ction-oriented. For example:

- Developed statistical models to forecast inventory and procurement cycles
- Built models for detecting botnets among terabytes of real-time ad market data
- Taught Graduate-level Statistics courses, with coursework focused on PCA

[Impact of Y] must be **S**pecific and **M**easurable, for example

- Delivering 20% inventory holding cost savings
- Improving fraud detection by 2X within 2 months
- Achieving student evaluations in the 95th percentile

[Technique Z] must be **R**elevant and **T**echnique-focused (hard or soft skills). For example:

- Deploying regression models, hypothesis testing and confidence intervals
- Using Python (scikit-learn, NumPy, SciPy) and SQL
- Through clear classroom presentation and extended office hours

How to take action now!

Its time to make your bullet points SMART. Use the above guidance and examples to give it a shot! Focus on one job experience to start off with.

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Once you have a feel for it – and can see/feel the improvement in how your experience comes across – move on to the next one.

Now you will sound on paper as awesome as you are in real life. :)
Congrats!

Onwards to Step 7 of the Guide – Showcasing Your Education!

STEP

7

STEP 7: Showcasing Your Education

7.1 What Education/Courses to List (and Not List)

It is important to be succinct in the Education part of your resume. You want to be succinct in terms of what institutions you list as well as how much detail you share. Remember, you don't want to overwhelm the Hiring Manager with every course you took at Undergrad, or every club you were a member of. Again, the name of the game is "tailoring" - focus on what matters most to the Hiring Manager, referring back to the HOPES framework.

In terms of institutions to list, you should include any/all of the following if you have them, alongside the name of the degree / your major

- PhD
- Masters
- Undergrad
- Boot-camp / MOOCs that are data-oriented
- **Do not list High School**

7.2 Guidelines for How Much Detail to Share

In terms of details to share for each educational experience, our recommendation is to include 3 supporting bullet points for your most recent education, as follows:

1. **Accomplishment 1:** Academic e.g., Grades (if GPA > 3.1), Scholarships, Awards etc. If you have a relevant Thesis make sure to highlight it here
2. **Relevant Courses/Coursework:** List these out; max 5 (not more than one line); including keywords as identified in the HOPES if they apply to your circumstance
3. **Accomplishment 2:** Extra-Curricular e.g., leader of a club (even better if Data Science related), captain of a sports team etc.

If your most recent Education is a Bootcamp or MOOC, stick to mentioning the most relevant course material covered and any accomplishment/award. Extra-curricular activities will be less applicable in Bootcamps!

For other Educational experience, how much detail to include will depend on a number of factors. Specifically, we'd recommend providing supporting bullet point(s) for additional Educational experience if it is:

- **Relevant** - i.e., course material provides proof-points of your fit for the role (especially if it hits on something in the HOPES)
- **Stand-out impressive** - i.e., very high GPA that signals intellectual horsepower
- **Only experience** - i.e., if you won't be listing Work Experiences dedicate more space to Education, along with Skills and Projects

Remember, any academic undertaking is essentially a full time job for 2 to 4+ years so give yourself the credit you deserve!

Congrats – you've constructed a fantastic resume. Before finalizing it, let's switch gears for a moment. Then you'll come back for some final checks...

Onwards to Step 8 of the Guide – Nailing The Cover Letter!

STEP

8

STEP 8: Nailing the Cover Letter

"Surely I don't need a cover letter - my resume will speak for itself!"

You've been putting this off for weeks. You thought the cover letter would come naturally after you finished your resume, BUT... after several attempts at sitting down to try to write it, you're starting to feel panic creeping over you. This is not as easy as you thought. You've browsed multiple examples online and are feeling overwhelmed ... Maybe you can get away without it? No one is going to read it, are they? Your resume is now awesome anyway, right, so who needs a cover letter?

"A good cover letter really helps bring a candidate to life; I read it and can understand how they would fit in the team and deliver impact on Day 1; a bad cover letter, well..." - Data Science Hiring Manager

You do need a cover letter – and a well-written, coherent one at that! It is your chance to put more color and context around your story and why you're the perfect candidate for the role you are applying for.

You don't have to let the idea of writing one crush you ... deep breath, and here we go with our 6 steps to an Awesome Cover Letter!

8.1 What Template to Follow

The best way to approach the Cover Letter is with a clear template in mind. We're big fans of the simple, 3-paragraph approach. Nothing too long – just

1. A clean, straight-forward articulation of why the job is exciting
2. Why you're the person they're looking for
3. A short, punchy close.

Paragraph One:

Showcase what you know about the company – and why it excites you

This is your chance to show that you've done your research and that this letter is written to (and about) them – not a generic letter that you're blasting out to every job that even slightly piques your interest!

You'll need an opening sentence before you get into those specific details

["I'm writing with great [enthusiasm/excitement] (pick your adjective!), to express my interest in [Data Scientist] role at [Company xxx]"]

Then, get into the specifics. Every Hiring Manager likes to hear that their company / job / group is great, so play to that but make sure you're clear on the "why" that matters to you (more on that in Step 8.2).

Paragraph Two:

Showcase your value proposition and relevant skills

This is your chance to setup and add to what the Hiring Manager will find on the resume. Make sure to really and truly convey the relevant skills that make you the standout candidate. Here is where you'll include your Summary Statement (from Step 3.2), as well as call-out specific skills tailored to what matters to the Hiring Manager (from what you figured out in Step 2).

We recommend starting in paragraph style (for the summary statement) and then using bullet points to really make the skills stand-out

[Summary statement] [Linking sentence e.g., I believe my key strengths would be a real asset to your team, specifically:]

- [Headline skill/strength]: [Description that showcases it]
- [Headline skill/strength]: [Description that showcases it]
- [Headline skill/strength]: [Description that showcases it]

Paragraph Three:

Short, punchy close

You've shown why you're interested and what skills you can bring, so no need to belabor the points! Just sign off on an enthusiastic and optimistic note :) For example:

I'm excited about contributing my skills and experiences to the [job title] role at [company xx]. I look forward to having the chance to speak with you in more detail about how I can be an asset to your team.

8.2 How to Tailor Your Cover Letter

Generic cover letters are very easy to detect and nothing is a bigger turn-off to a Hiring Manager. So while it may seem like a good deal of work, you want to make sure you're clear about why each company and role are exciting to you; and what you can offer that specific job.

Read through the job description - what is it about the role that most excites you? Is it the company's product or mission; the work the Data Science team is doing; an example project you heard about while networking with the team; how important Data Science is to the company etc.?

Make sure you tell the Hiring Manager in the first paragraph why you're excited about their specific company and role. The more concrete and truthful your reasons, the better. Make it something that you could only say about them (not a generic statement that could be copy/pasted to either a competitor or another job you are applying to).

And, more than just what excites you - why does it excite you? One trick here to really get to a specific level of answer is to ask yourself the "5 whys", so... you've identified what excites you

- why is that? ...
- and why is that important to you? ...
- and why is that?
- and why is that?
- and why is that?

You won't necessarily have to go all the way to the 5th why to find what you want to call out on the cover letter, but doing this should really help you showcase more about yourself and your understanding of the

company than a vanilla statement that could apply to a whole host of applications.

Now, let's not only look at what's on the job description - let's think more broadly ... how is this company using Data Science? You should have some ideas from the work you did in Step 2 – specifically when you were drawing out the implications of the company issues for the Data Science Team (check back to Step 2.2).

And, again, communicate this in the first paragraph – you want the reader to know as soon as possible why you're excited about their specific company and role; and that you understand enough / have thought about it enough to recognize how you could have impact. If you can demonstrate both of these, your cover letter is off to a great start!

How to take action now!

Let's get really specific ... Look at the job description for the next application you were going to submit (or, if you're not there yet, just open up Indeed.com or a related job website, search for Data Scientist, and pick a job from the front page that seems interesting to you).

Read it through a couple of times and then:

1. Write down 3 things that excite you about the role
2. Pick one of them
3. For that one, write down why it excites you
4. Why is that?
5. Why is that?
6. Why is that?
7. Why is that?

Now, recall what the first paragraph should include:

[*"I'm writing with great [enthusiasm/excitement] (pick your adjective!), to express my interest in [Data Scientist] role at [Company xxx]"*]

Use the above to craft a sentence to include. For example: "*I am especially excited about this position given [what excites you] since [why it excites you]"*"

8.3 How to Say Something New

The opportunity to write a cover letter is actually a great thing (even if it doesn't feel like it right now!). You suddenly have a whole extra page to tell the Hiring Manager how awesome you are; and how you can help make their team more awesome ... so, why repeat the resume? Use this chance to add color and context to your story.

Ok ... How?

Think about what you want to ensure the Hiring Manager knows about you and your story, that won't be clear from your resume. Maybe you want to demonstrate you're a fast learner, maybe you want to illustrate some softer and/or leadership skills that don't come through explicitly on the resume, or maybe you want to explain a gap in your employment history. These, and many more, are instances where the cover letter can be your friend :)

For example, you can illustrate:

- a) Not only what programming languages you know (which the resume covers), but how quickly you can learn new ones. Your resume will show your experience with Python and that you know R, but you won't have space to convey that you had to learn R in a matter of days to get started on a team project.

- b) How well you work in teams. Your resume will tell the Hiring Manager that you were part of a team that entered (and won) a recent Data Hackathon. However, you won't have space on your resume to communicate that you teamed up with people you'd never worked with before and, in the space of 24 hours, came up with an idea and executed against it. So you can use the space in the cover letter to tell them this information.
- c) Your passion for statistics. Your resume will convey the stats courses you've taken, and/or skills/techniques you know. However, your resume won't tell the Hiring Manager that you perhaps didn't have to take any of these – that you pursued them on the side, outside of your job or main course requirements, because you were just deeply interested in the space.

So, for your cover letter these become:

Proven Fast Learner: In my current research role I use Python extensively (scikit learn, NumPy, pandas). A recent team project required me to switch to R. It was a short project (3 month duration) so I had to rapidly learn and apply new skills within days. I am therefore very confident that I could quickly ramp up and add value to your team – both in your Python-based work; and in other languages/tools as needed.

Effective, cross-functional collaborator: I am experienced at bringing people together: I have been part of many team-based projects during school – always seeking opportunities to work with people from different backgrounds. In the recent [xxx] hackathon, I joined up with 4 cross-disciplinary team members I'd never met before, and together aligned on and executed a prize-winning idea within 24 hours. I believe this versatility will be an asset in working with different teams/functions at [company x]

Passionate Statistician: I have actively pursued numerous stats courses outside of my main course requirements to build my knowledge base. From these courses, I have frequently applied techniques like Linear Regression and PCA in independent project work. I now want to apply

this passion in my everyday work – especially in a team like yours that shares these values.

These examples may not be the ones you use. However, you can use them to stretch your thinking. What is it about you / your story that the resume doesn't do justice to? Make sure that it is relevant! You ideally want to find 3 skills to highlight in the second paragraph of the cover letter that make you the perfect candidate. And remember - think back to the HOPES framework. Examples such as the above, that take the resume, but push it further, are the instances you're looking for to really stand out.

How to take action now!

Let's get really specific ... for whatever job application you're currently working on ... Think about a close friend or family member - one who thinks very highly of you! If **they** were to describe your strengths, what would they say? List out the adjectives / terms you think they'd use on a sheet of paper. Now, look at the list, and think about it from the point of view of the Hiring Manager's HOPES. If you were the Hiring Manager, which would you care about the most?

Once you have those, build bullet point sentences around them – just like the ones above; but for you :)

[Headline skill/strength]: [Description that showcases it]

[Headline skill/strength]: [Description that showcases it]

[Headline skill/strength]: [Description that showcases it]

8.4 How to Toot Your Own Horn

Yes, this is uncomfortable for most people, but let's face it, some degree of horn tooting is required! On a related note, don't apologize for any skills you may be lacking relative to the job description. It is unlikely anyone will match up 100% and it is better not to draw attention to any of your deficiencies. Focus on all the assets you bring to the role. Leave it for the Hiring Manager to decide if you don't measure up in some areas. Don't put doubt in their mind unnecessarily!

How to take action now!

One way to overcome this is to write your first draft in the 3rd person, as if a friend or colleague was writing about you. Make sure you choose someone who thinks highly of you (!) and put yourself in their shoes. Then write the cover letter as if you are them, writing about you. It can often be much easier to be effusive about someone's qualities when you de-personalize it a bit! Once you have this version, you can go back through and put it in the 1st person :)

8.5 How to Make it Readable (by a 10th Grader)

While the content of your cover letter is most important, making sure it reads well to the (time-constrained) Hiring Manager is also critical.

Most importantly, it must be

1. **Error-free.** At a minimum, run spell-check! Also have a close friend or colleague check it for you.

2. **Gut-Checked.** It is also worth waiting a few extra minutes to hit submit. Don't send it in the moment you're done, but have a look at it with a fresh pair of eyes (or borrow someone else's) before you commit it into the system.

3. **Written in the appropriate style/tone for your target audience.** If the company/position you're applying to is very formal, then make sure your opening/closing and descriptive language play to that. If it is more casual, even a little tongue-in-cheek, then you can be a bit more expressive in how you describe your excitement, skills etc. A good way to gauge this (if you don't have chance to talk with the team) is by reading both
 - (a) The job description
 - (b) The company websiteJob descriptions often default to being overly formal, even when the company/team is not, so it is worth checking out their website too. Together these should give you as good a sense as possible of the culture (outside-in) and hence how to tweak your language.

4. **Adverb light.** It is all too tempting to add them in, but over liberal use of "very" or "extremely" or "immensely" etc. can start to sound insincere. Deploy them sparingly!

5. **Easily readable.** Not too wordy or overly complex. A great trick here is to run your text through an app like [Hemingway](#), which will give you an objective view of sentence length, complexity, passive tense usage etc. If you follow the recommendations, you'll end up with tighter, simpler prose :)

8.6 How to Write to Someone (Ideally Hiring Manager)

Addressing your cover letter to a particular person is easier said than done. Especially given the proliferation of online application forms these days where there is no indication of a Hiring Manager's name! However, if you do know the Hiring Manager's name (from the job description, networking etc.) make sure to address them personally. If you don't know their name or who will be reading the cover letter, here are a few ways to go the extra mile to standout:

Option A: Try to find the Hiring Manager's name.

This can be tricky, so here are some suggestions on proven approaches to try. Note: sometimes it takes a couple of levels of digging; sometimes you'll get nowhere, but it is worth the 10 minutes of trying.

- I. Do a Google search for "Data Scientist [Company X] site:LinkedIn.com". Look through the results. Is there an obvious Team Leader? Is there only one person listed in the location you're applying to (and they have a title that sounds like it would be above yours!)?

- II. Do a Google search for “Data Scientist [Company X] site:twitter.com”. Look through the results and click into the profiles/tweets that look most promising. Does anyone list themselves as a Data Scientist at the company? Do they work in the location you’re applying to? Do they have a decently senior title? ... Can you plug them back into LinkedIn and use this to further your digging on who else might be in the team? Who is the lead?
- III. Review the Company website, especially the “About” page. Are team members listed? Is there a Data Scientist on there (more likely for smaller companies, but worth a shot)? If there is just one, there’s a high chance you’ve found the group leader; if there are several, you can try going back to LinkedIn with the different names and investigating titles.
- IV. Do a Google search for “Data Scientist [Company X] site:meetup.com”. Given so many Data related meetups exist, there’s a high chance someone from the team will be attending local events. This can be a good way to track down team members and contact details.
- V. Cold-call the HR department (phone the company and ask for HR if you can’t find a direct phone number). Potentially a bit more awkward than just surfing around the web for clues, but it can be effective. Often the best strategy is to be very upfront - say you’re applying to X position and want to be as thorough as possible in your research and can’t find the Hiring Manager’s name (you can even say you’ve tried numerous web searches to show you’ve been trying!).

Note: If you can’t find the exact Hiring Manager’s name then default to “Hi [Company X] Data Science Team”

Never use “To Whom it May Concern” or “Dear Sir or Madam” as both feel very generic and old-school.

However, if you can't find the Hiring Manager's name, don't stop yet. There is one further exploration available to help make you stand out ...

Option B: Find a colleague's name and email address

The tactics above should have surfaced at least one Data Scientist at the company – possibly many more. Reaching out to the one you think is likely closest to the Hiring Manager (based on job title and location) can pay dividends. Sending them a brief email introducing yourself and saying you wanted to apply personally versus just via an online form can help make a very positive impression. And you will also get credit for taking the initiative to track them down! You can also attach your cover letter and resume, which gives you the added chance that it gets read versus stuck with HR!

How to find the email address? ... A few options:

- I. Long shot (but can work): Google “[their name] email address”
- II. Check their LinkedIn profile
- III. Look for a personal website / About.me page that then lists their email. You can often find a personal site by doing a Google search for their name. You can also do Google searches for their name and a specific website like Twitter, LinkedIn, and Meetup.
- IV. Check their educational background in case you share an alma mater and can then find them in an alumni database
- V. Check their GitHub profile. If you can't easily find their profile, do the Google domain search rather than within GitHub. – “[name] site:github.com”
- VI. See if they were recently in Academia. If so, do a Google search for their name AND their university to see if any papers come up or a faculty / student page. Either resources may well have a university email address that will likely now be forwarded to a personal one
- VII. Try a LinkedIn message. If you're both members of a group you may be able to get a message accepted that way (depending on their settings). You can also look for network contacts to

introduce you. And if all that fails you can pay to send an InMail (LinkedIn's pay for message service).

Though this may seem onerous, actually making contact with someone on the Hiring Team can be a very effective way to get noticed. Additionally, very few (if any) of your competition will be doing it!

Terrific – you've now created a cover letter that will show you in the best light possible as well as be a great companion to the amazing resume you have crafted. Now let's do some final checks.

Onwards to Step 9 of the Guide – Pulling It All Together!

STEP

9

STEP 9: Pulling it All Together

9.1 Three Proven Techniques for Self-Review

You're close to done! Your resume and cover letter are stronger than ever and you're confident that you are putting your best foot forward. The progress you've made is commendable and you should feel proud of all of the hard work you have put into this process. Just compare what you started with to what you have now – great improvement, right?

There are just a few more bits of work to do. In this section you'll conduct a self-review to ensure you have followed the process correctly and that you are representing yourself in the best light possible. Though looking back at everything you've pulled together can be painful (now that you're so close to being down) – trust us, its worth it.

First up, self-review.

Use the following 3 techniques to go over the work you've done. They are straightforward, show your specific strengths, and you'll find it very satisfying :)

I. Word Clouding

As you've seen throughout this course, word clouds can be very helpful in identifying what words / messages are popping out of an otherwise dense chunk of text. Let's do it again, though this time on your material. First check your resume, then check your cover letter, and then the text of your resume and cover letter combined.

How to take action now!

Copy and paste the text of the document you are analyzing into a Word Cloud generator. Generate the Word Cloud. Study the results. When looking at the results, you want to check the words that are most prominent against the HOPES framework you developed for this job application in Step 2.4. Use Worksheet 9.1a to help. How much overlap is there?

Self Review: Word Clouding		HOPES check
Most prominent words		
1	xx	Y
2	xx	N
3	xx	Y
4	xx	N
5	xx	Y
6	xx	Y
7	xx	N
8	xx	Y
9	xx	N
10	xx	Y
11	xx	Y
12	xx	Y
13	xx	Y
14	xx	Y
15	xx	N

of Y 10

Specifically, look at the top 15 words that pop on the word cloud. Which of these are on the HOPES framework? Either exactly or closely related.

If you have

- **7-8:** you're on the right tracks. However, it is worth trying to make 2-3 other keywords pop out on your resume
- **9-10:** you have a well-tailored resume. Check that the words you really cared about popping are doing so. If not, see if there is way to highlight them further
- **>10:** you're in great shape! :)

2. Key Messaging

It is important to take a step back and check all the tailoring you were doing has paid off.

How to take action now!

Take a 10-minute break, clear your head and then come back to your application. Read through both your resume and cover letter as if you were reading someone else's. Then, as objectively as you can, pull out the 5 key strengths you think this person has that are relevant for the job they are applying for. In other words, what do you take away as the top 5 qualities the candidate will bring to the role? Write these down in Worksheet Step 9.1b.

Self Review: Strengths Conveyed		
#	Strength	Match with Step 3.1b?
1		
2		
3		
4		
5		

# of Y	0
--------	---

Go back to the work you did in Step 3.1 of the Guide. Look at the list of strengths you wrote down that you wanted to be sure to convey. How does this match up with what you just noted down? If there is not at an

80%+ overlap (i.e., you wrote down less than 4 or 5 out of those from Step 3.1), re-look at your resume and cover letter to figure out where you can make sure your top strengths come through more clearly.

3. Balancing

You need to check for balance and positioning across your resume and cover letter. There may be cases where only one gets looked at so you need to have both documents be able to stand on their own. You need to make sure that either document will get the Hiring Manager interested!

How to take action now!

Go back to the 5 strengths that you listed in Step 3.1 and now refer to Worksheet Step 9.1c.

Self Review: Coverage of 5 Strengths to Convey		
#	Strength	Covered in (i.e., R or C)
1	Leadership	
2		XX
3		XX
4		XX
5		XX

For each of the five strengths check to see if they are prominent in your resume. Note down an R next to it if it is. Now, do the same but for your cover letter, using a C this time if the strength is featured. Look at what you have. Ideally you want something like this, as what you're looking for is balance:

Example:

Strength 1: R & C

Strength 2: C

Strength 3: R

Strength 4: R & C

Strength 5: R & C

If instead you have something more like the example below, you will need to re-balance the resume and cover letter to make sure someone just reading one of the two would get the full story. If you have more R's than C's, then you'll have to add more "strengths" to the cover letter. If you have more C's than R's, then you'll have to add more "strengths" to the resume.

Example:

Strength 1: R

Strength 2: C

Strength 3: R

Strength 4: C

Strength 5: C

Keep iterating until you have an R against at least 4 of the strengths and C against at least 4 of the strengths.

9.2 7 Questions to Guide Peer Review

Even though you finally have a fleshed out resume and cover letter you may still be feeling a bit insecure about it. Have you followed all the steps of the process correctly? Have you presented a compelling *and* accurate picture of your story and what value you can add to the role? Would a Hiring Manager be excited to read this application? Will they be grabbing their phone to invite you to interview?

To help answer these last lingering doubts we recommend using Peer Review. Yes, it can be a little awkward asking a friend or family member to read over these things, but the extra eyes are almost always worth it! You want to check your resume and cover letter:

- a) Convey what you're intending
- b) Showcase your full (relevant) skills/strengths
- c) Avoid too much modesty and/or dwelling on weaknesses

The following questions are typically the most helpful to ask the peer reviewer:

a) Check you're conveying what you're intending

- What do you takeaway as my key strengths for the role?
- What do you understand as my rationale for applying?
- Would you be excited to hire me for this role? Why/Why not?
Make sure to communicate that you are asking them based on resume and cover letter alone; not what you know from personal experience.

b) Check if you're missing key traits / points

- Does this sound like me? You want to be genuine. A false portrayal of your skills and personally may help in short-term, but won't help you land the interview or job.
- Are there any skills/strengths that don't come across? Which?

c) Check you don't highlight weaknesses

- Do I "toot my own horn" sufficiently? Note: you should also ask the reverse, though we find it is far more likely for candidates to understate strengths than overstate.
- What weaknesses can you detect? Where/how?

How to take action now!

Take your latest resume and cover letter out with you the next time you leave the house. When you're with a good friend or family member ask for 10 minutes of their time and go over these questions. Once you've done it once, it will get easier and easier (and less awkward). As with many things, the first time is the hardest, so pushing yourself to start now will mean easier times are ahead :)

9.3 Final, Pre-Submission Checklist

Let's return to where we started ... the 6 resume saboteurs. Some combination of these has likely impacted your ability to land an interview thus far. Through this step-by-step course you have been crushing them! :)

Before you hit submit, use this Pre-Submission Checklist to get extra comfort that you've done everything to create a standout resume!

1. **TAILORED** your resume for the position. Have you:

- ✓ Put yourself in the Hiring Manager's shoes?
- ✓ Thought beyond the immediate job description to figure what else matters to the Data Science team/Company?
- ✓ Identified the must-have versus nice-to-have qualifications?
- ✓ Carefully selected Experiences and Skills to include?

2. **"PROOF POINTS" must be evident.** Have you:

- ✓ Thought explicitly about your "Proof Points"?
- ✓ Assessed which are most critical for each role?
- ✓ Ensured they feature in your resume and/or cover letter, with balance across the two (in case only one is read)?

3. **KEYWORDS are prominent.** Have you:

- ✓ Identified the keywords?
- ✓ Been purposeful about placing keywords on your resume (without overdoing it!)?

4. **Focused on the 'HOW'.** Have you:

- ✓ Gone beyond the 'what' on your resume?

- ✓ Written SMART bullet points?
- ✓ Showcased *how* you achieved things?

5. FORMAT & STRUCTURE are clean. Have you:

- ✓ Been thoughtful in your Section ordering (case-specific)?
- ✓ Followed a template and/or best-practice guidelines?
- ✓ Chosen one of the best fonts for resumes?
- ✓ Converted the documents to the PDF format?

6. COVER LETTER that makes you shine. Have you:

- ✓ Followed the 3-paragraph template?
- ✓ Made sure you convey additional information than is found in your resume?
- ✓ Got into specifics on the company, role and what you bring to the table ... that are well beyond the generic?
- ✓ Checked readability?
- ✓ Found the Hiring Manager's name (or tried!)?

And finally, (lucky) check #7...

7. PEER REVIEW for a final gut-check. Have you:

- ✓ Had 1-2 friends or colleagues look over your application?
- ✓ Made sure you follow our guidelines for Peer Review?
- ✓ [COMPLETE PACKAGE BUYERS ONLY] Submitted it to us for (brutally honest and objective!) feedback. If you bought the Complete Package, now is as good a time as any to make the most of our (experienced) eyes :) If you didn't (and want to upgrade now), email us and we'll help!?

How to take action now!

Run through the checklist...

How's it looking?

- **Did you find a few gaps?**

Take a look back at where we covered that material in the Course, re-do the Take Action Now steps, and do a final touch-up.

- **All checked?**

High-fives all around! Time to move on to Step 10 ... Hitting Submit with Confidence :)

STEP

10

STEP 10: Hitting Submit with Confidence :)

Your work here is done!

You should now be submitting with confidence.

Good luck!

And please do keep us updated on your progress :) If you have any questions, please reach out. We read and respond to every email.