DERRICK MWITI

WRITING FOR DATA SCIENTISTS

INCLUDES TEMPLATES

How to build a career writing about data science and machine learning

Writing for Data Scientists

How to build a career writing about data science and machine learning

Derrick Mwiti - Machine Learning Developer Advocate. Neural Magic

Is this book for you?

Thanks for purchasing this book.

This book is for you if:

- You have already learned some bit of data science and machine learning.
- You want to start writing about data science and machine learning.
- You want to get freelance or full-time jobs writing about data science and machine learning.
- You have little or no experience writing about data science and machine learning.

This book is not for you if:

- You are unfamiliar with data science and machine learning. Those skills are assumed.
- You have already been writing about data science and machine learning for a while.
- You are unwilling to take the time to write and improve your writing skills.

If this book is for you, keep reading.

Praise for Writing for Data Scientists

I will highly recommend Derrick's book for data scientists who want to try out technical writing - both professionally and as a hobby. It is crisp, actionable, and most importantly, based on his own personal experiences as a successful data science author. Siddhant Sadangi. DevRel at neptune.ai

I've been lucky enough to work with Derrick for a few years and this book has some great insights into creating a data science writing portfolio and building out a technical writing career. Emilie Lewis. Editor-in-Chief of Heartbeat, Content and Community Manager at Comet

For aspiring technical writers—and especially in the Data Science and Machine Learning fields—content abounds: how to get started, how to go viral, how to monetize your work, etc. But in this book, Derrick transcends tantalizing promises of a quick buck or instant virality. Rooted in deep personal experience, practical habits, and realistic expectations, Derrick leaves no stone unturned. Indeed, this book offers tangible tips to help you write more effectively—but it also explores nuanced industry and market dynamics,

detailed methods for expanding the reach of your writing, best practices for communicating with potential clients, and much more. Derrick's thorough approach is a fantastic starting point for both improving the quality and consistency of your technical writing as well as developing a foundational understanding of how the larger technical content industry works—both of which are crucial if you're looking to begin and build a career as a technical writer. Austin Kodra, Content and Community Specialist

I had the opportunity to work alongside Derrick on multiple occasions and projects for various clients. Being a hands-on developer, his writing and editing work was always detailed and rich with technical know-how. It was easy to understand how he wanted to convey a complex story through a piece or through a series of well-thought-out articles that had the ability to drive end-readers to action. Learning from him first-hand through his book is not an opportunity you'd want to miss! Samadrita Ghosh. Product Evangelist, The Modern Data Company.

There are infinite levels of understanding and comprehension of data science and machine learning concepts. When we try to explain a particular concept concisely and clearly, we start to go through levels of our understanding and ask ourselves questions we never thought of before.

By performing this practice, we may discover that we do not grasp something that appeared to be quite apparent to us. The feedback mirrors how well you perceive what you write or post about. It becomes an iterative process where I strive to achieve simplicity and comprehension simultaneously. No wonder they say that simplicity is the ultimate sophistication. The same can be said about writing an article, blog, paper, or essay. When you write, you are fostering and cultivating your intellectual endeavors because the process of writing is one of the essential components to excel. Putting your scientific thoughts or ideas into words or expressing your data science research endeavors helps to refine and structure your thinking". Danny Butvinik. Chief Data Scientist, NICE Actimize.

In this comprehensive resource, you will find a well-stated and measured approach to building a career as a data science writer. For current and aspiring data science authors, this resource is a must-read. Time is money, and Derrick's advice will reduce your journey to a profitable career in writing by days, weeks, months, or even years. ~ Adam Ross Nelson, author of How To Become A Data Scientist.

Very insightful 💡💡. Thanks, Derrick, for this in-depth guideline. I am planning on diving deep into learning and content creation on Data Science, and this is a clear

guideline to keep me going. You have precisely covered some issues that affected me in dealing with rejection when starting, finding and validating ideas, finding writing jobs, and dealing with writer's block. It's a right-on-time book for me, and this is a resource I will keep by my side to guide me through this journey. Brian Mutea. Software Engineering Graduate

I've been lucky enough to work with Derrick for a few years, and this book has some great insights into creating a data science writing portfolio and building out a technical writing career. Emilie Lewis. Content and Community Manager at Comet ML

I recently read the book "Writing for Data Scientists," and it was an incredibly informative and helpful resource. The book is well-organized and covers a wide range of topics related to data science writing, relevant to both beginners and more experienced writers.

The content is well-researched and presented in an accessible way, making it easy to understand and follow. Additionally, Derrick provides real-world examples which really help understand the concepts and apply them to their own projects.

Overall, this book is a great resource for data scientists looking to hone their data science writing skills and

become a better storyteller. Highly recommended! Paolo Perrone. Founder, Head of Data Science, Prediktiva.

This is a book I wish I had read as I started my career in Data Science. Written in simple language, this book is an equivalent of that mentor you need to get inspired to start writing. I consider this book very practical. The author takes us through his first-hand experience as a technical writer with literal examples of tools and techniques he has used to be an expert writer. This is one of the books you keep near your study table. You will need to keep referring to it. Teresia Muiruri, Senior Associate - Technology, Data, and Analytics.

Thank you so much for the awesome and amazing book. It has really helped to shape and broaden my knowledge in my field of study. The book is so concise, easy to understand and always informative. Thank you so much for sharing your knowledge, you are the best! Olumide (Ayodeji) Shittu, Data Science Technical Writer, Educative.

Foreword

I once wrote an article that got me promoted.

I woke up one day, and it hit me that I was incredibly fortunate to be working with the technology I was working with. The company I was working at was on the bleeding edge. And I was incredibly inspired by the people I was working with, that they were figuring all these crazy things out.

So I stopped and wrote a blog post about it; this was around 2015.

That blog post got picked up by a major newsletter. That got tons of reads by engineers all over, and many of those engineers started applying for roles at our little startup. And the shocking thing is that many were citing that article. They, too, wanted to work with cool tech and great people.

The recruiters at our firm struggled to explain what functional programming is, what Azure was all about, or what F# was. That's why the recruiters were shocked to get so many inbound applications seemingly randomly. So when they figured out it was all coming from a post on my blog, they forwarded the post to our CEO.

Then our CTO asked me to forward him the massive newsletter with millions of readers that had picked it up.

Long story short, all the execs at our startup now knew about this article. Tons and tons of good things came from a single article. All I wrote was some technical content explaining our stack, what we did, and why it was so exciting. That piece of content was out there working for me while I was sleeping.

It was like an asynchronous process I spun up doing work on my behalf, just waiting for the right moment to call back.

When the process called back, it found my firm other engineers who were passionate about functional programming and were deeply interested in learning new things. It did so without spending a dollar.

That is the power of writing and sharing technical content online.

A few months later, when I got my promotion, that article was cited as one of the reasons I had gone above and beyond.

So if you are on the fence about sharing the things you currently do in engineering or data science, don't be. I promise you that only good things will come from it for

you and the firms you work for. Spin up some asynchronous workers that can be out there working on your behalf; you won't regret it.

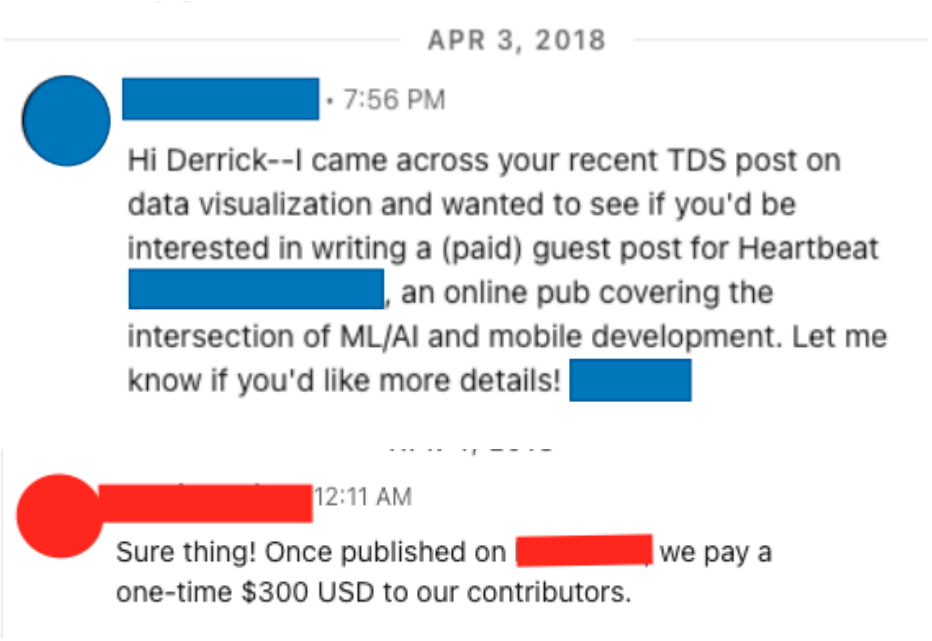
Louie Bacaj, Engineer turned Entrepreneur, Former Senior Director Of Engineering at Walmart.

Preface

It was 2018, and I was at the Meltwater Entrepreneurial School of Technology, where I pursued postgraduate studies in business, communication, and technology, having completed a bachelor's in Mathematics and Computer Science the previous year. My major was in statistics, so I naturally gravitated to data science. I was previously using R but had just started learning Python.

In the process of learning, I started writing data science blogs on the Towards Data Science blog. My objective was to share what I was learning and create a brand. No sooner had I published two blogs that a community manager at a machine learning company reached out to me about writing paid posts for their company. I was offered $300 per post. Depending on the post type, the price changed later to range between $75 to $250. I worked for the company for over three years until they sunset their product.

Since then, I have worked with various machine learning companies, such as Paperspace, cnvrg.io, neptune.ai, Layer, Neural Magic, and Activeloop—all paid engagements—, to mention a few.



I have also written for publications that don't pay, for example, KDnuggets. KDnuggets, in particular, is very good for building a personal brand because they are a well-established brand. As of this writing, top writers are compensated based on their article's viewership.

In this book, I aim to distill all I have learned in the last five years of writing about data science and machine learning into a guide you can follow if you would like to follow the same path. The information in this book is helpful if you want to write to build a personal brand or build a full-time or freelance career out of it. Having worked on all these spectrums, I offer a unique perspective to help you succeed in whichever sector you choose. Writing skill is especially critical for roles such as developer relations, developer advocate, technical writer, and technical documentation manager.

I have written over 200 articles in data science and machine learning with over 1M views on Medium alone. That is around 1M words in data science and machine learning over the last five years. In the beginning, my writing sucked. And I didn't even know it because I wasn't focused on building a writing skill. I focused on learning and writing about various data science concepts. Am I the world's best data science and machine learning writer five years later? No. But I am not where I was five years ago. When I started in 2018, it would have been hard to imagine that I could make a career out of creating data science and machine learning content. Let me save you five years of trial and error and quickly get you started writing about data science.

How to start writing

Building a writing habit can be problematic in the beginning. First, you need to understand how writing about data science and machine learning is helpful. Next, you need to decide what to write about. I suggest writing about what you are learning as you take courses or at your job. If you are just getting started in data science, this might look like this:

- Python for data science
- NumPy
- Pandas
- Matplotlib and Seaborn
- Plotly
- XGBoost and LightGBM
- Streamlit, Gradio, and Dash by Plotly
- Keras and PyTorch

Here are my first three articles on Medium about data science:

- What programming language should aspiring data scientists learn?
- The State of Data Science and Machine Learning, Part 1: Education, job titles, and skills
- Data Visualization & Exploration using Pandas Only: Beginner

The first two articles were motivated by analyzing a Kaggle Survey dataset. The third article documented my learning of Pandas, and those articles helped me land a $300 paid gig for my fourth article.

Don’t underestimate small beginnings.

Why you should write about data science

The single piece of advance I give to anyone trying to penetrate the data science and machine learning space is "*Start writing*." Writing can initially seem intimidating, but you get the hang of it as you keep writing. The biggest handle is starting. When you get over that first article, you are set.

However, why should you consider writing? I posed this question to Christina, and here's what she had to say.

"*I am more of a reader than a writer (hence my #bookaweekchallenge). I have to make an extra effort to write because it does not come naturally to me. Thus, I only do so occasionally. Whether writing proper publications or producing short-form content (I do more of the latter), it is important to use these mediums to get your voice heard. This helps establish thought leadership and trust within the tech world, which can ultimately open more doors for you professionally*." *Christina Stathopoulos. Independent Data Consultant and International Speaker.*

Here are some more reasons why you should start writing.

Better understanding

When you teach something, you understand it better. You know how well you have understood something when you teach another person—writing forces you to pay more attention to details to explain them easily to others.

Building a personal brand

Building a personal brand is as true for data science as any other career path. When you write, you establish yourself as an expert in data science. People on the internet will associate you with what you write. When people think of you, they see you in the light of what you write. This is a great thing for building your brand as a data scientist. Writing is a way to showcase your prowess to the world and acts as a silent resume for you. There are many publications, such as Towards Data Science and Heartbeat, that you can contribute to.

The advantage of publishing with them is that they have editors who review your articles before they are published. They give feedback that helps you improve your writing skills. They also help you promote your content online, which goes a long way in building your brand in this field.

Becoming a part of data science communities

There are numerous data science communities on LinkedIn, Facebook, Medium, etc. By writing, you also

establish a follower-ship of people who look forward to your pieces. I was amazed when somebody contacted me on LinkedIn and informed me that they knew me as one of our nation's contributors to machine learning.

It is motivating to know that your work provides value to people. By contributing to these communities, you also put yourself in a position to get help from the community. People see you as genuinely interested in the community's growth. Some publications also pay you to write for them, but if this is your sole reason, I can guarantee you won't last long in the game.

Mentor others

We live in a world that is a global village because of the internet. There are so many data scientists I look up to because of their courses and blogs. Although they may not know it, they mentor many people who look up to them. In the same way, my work and yours can mentor other data science enthusiasts. The best way to learn is to:

- Look up to the people who have gone ahead of you.
- Work with people at your level.
- Mentor those who are still coming up.

So what are you waiting for? It's time to light the candle for the next data science enthusiast.

Pay it forward

You will likely learn what you know because someone mentored you, published a course, or wrote a blog post. In the same way, your work can support upcoming data scientists to believe in the beauty of their dreams. It's also a way to keep this community growing.

Opportunities

When you write, your work becomes instantly available to the entire world. Anyone googling you or looking at your profile can find your work. I started writing on my Medium account and later started writing for Towards Data Science. A community manager at one of the Machine Learning Blogs in Boston saw my work and contacted me via LinkedIn. They wanted to know if I would be interested in writing paid articles for their blog. So many people want to write for paid blogs but don't have a portfolio. Your articles will act as a resume for you when the opportunity presents itself.

Final thoughts

Writing is a skill like any other and takes time to master. All you have to do is to start. As you keep writing, your skills will improve. So don't give up if people don't like the first post.

If you are convinced to start writing, let's dive into the details.

Thanks for reading to the end.

Tag me on Twitter and LinkedIn when you share your next data science article.

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