THE VOICE OF DATA PROFESSIONALS & INNOVATORS

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DATAGIST

MAGAZINE

COVER STORY

BUILDING DATA PROFESSIONALS, NOT JUST DATA SKILLS

Why business thinking, not just technical skills, will define the next generation of data professionals.



ESTHER ANAGU

- Data Scientist
- Author
- Founder, Learned to Hired

Driving business impact by developing professionals who think beyond technical skills.

DATA AS BUSINESS STRATEGY

Using data-driven leaders use evidence to make better decisions and drive real impact.

INDUSTRY INSIGHT

Africa's biggest untapped opportunity in data—and the capabilities every growing company should invest in.

LEADERSHIP & INFLUENCE

Mentoring, teaching, and building communities to develop people and shape the next generation of data leaders.

REFLECTION

Lessons learned, mindset shifts, and advice that transforms careers and creates lasting impact.

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HER BOOKS

LANDING YOUR FIRST JOB AS A DATA PROFESSIONAL

A practical guide to break into the data industry with confidence and clarity.

THE DATA ANALYST ROADMAP

A clear path to build a sustainable data career by thinking like a business analyst and solving real problems.

BUILDING DATA PROFESSIONALS, NOT JUST DATA SKILLS

In today's data-driven world, learning SQL, Python, Power BI, and machine learning has never been easier. Thousands of aspiring professionals complete courses, earn certifications, and build portfolios every year. Yet, only a few become the trusted advisors organizations rely on when critical business decisions need to be made. ***Why?***

For Esther Anagu, "***exceptional data professionals are not defined by the number of tools they know, but by the value they create."***

The journey has never been about accumulating technical skills. It has always been about developing the mindset required to solve real business problems. Through her career in banking and mentoring hundreds of aspiring professionals, she has observed a pattern that continues to shape her philosophy: technical competence may open doors, but professional credibility is earned through impact.

"Anyone can learn SQL, Python, or Power BI, but people trust professionals who consistently deliver value."



Reflecting on a defining moment in her career, she recalled an analysis that initially appeared routine but ultimately reshaped how she approached problem solving. Rather than delivering only what was asked, she explored the data further, uncovered additional insights, and presented recommendations that supported better business decisions. What began as a single expected slide became a comprehensive analysis that surprised her manager, not because it was technically complex, but because it demonstrated initiative, curiosity, and business thinking. That experience reinforced a lesson she now shares with every aspiring data professional:

"Don't just complete tasks. Solve problems."

This philosophy also explains why she believes there is a significant gap between how data is taught and how it is practiced inside organizations. Online learning platforms do an excellent job of teaching tools. Students become familiar with SQL queries, Python libraries, dashboards, and visualization techniques. But inside organizations, success depends on much more than technical execution. Professionals must communicate effectively, manage stakeholders, navigate changing business priorities, work with incomplete and messy datasets, and explain insights in ways that influence decision making. Real-world data is rarely clean. Business problems are rarely straightforward. And no online course can fully replicate the complexity of solving problems where ambiguityis the norm. Consistently observes through mentoring is that knowledge alone does not build confidence practice does. Many learners spend years moving from one course to another, collecting certificates while postponing the work that truly develops competence. The professionals who eventually succeed follow a different path.

Esther Anagu is a Data Scientist at one of Nigeria's leading financial institutions, mentor, founder of Learned to Hired, and the author of two career development books

- Landing Your First Job as a Data Professional
- The Data Analyst Roadmap.

She is passionate about helping aspiring data professionals navigate the often overwhelming world of data, equipping them with the clarity, confidence, and practical mindset needed to build careers that create real business impact.

A graduate of Accounting from the University of Benin, Nigeria, Esther later earned an MBA from Nexford University, specializing in Advanced Automation and Artificial Intelligence. While her academic journey provided a strong foundation, she believes her greatest professional growth has come not only from degrees or certifications, but from solving real business problems.

They build projects, solve real problems, reflect on their mistakes, and continuously apply what they learn.

"It's the application of knowledge, not simply the acquisition of it, that makes the difference."

This belief has also shaped how she thinks education should evolve.
If given the opportunity to redesign a modern data bootcamp, she would remove one of the many tool-focused modules and replace it with something far more valuable: **learning how to think like a data professional.**

Before writing a single line of SQL or Python, professionals should know how to ask better questions, understand business objectives, think critically, identify the right problem, and determine the most appropriate solution. Technical tools matter but they are only instruments. The ability to think strategically is what transforms technical knowledge into business value.

In an age where endless tutorials, AI tools, and online resources compete for attention, many aspiring professionals mistakenly believe that consuming more content automatically leads to greater competence. She challenges that assumption. Knowledge, she argues, is only the beginning. Competence is built through consistent application. Confidence is earned by solving problems. Growth happens when learning moves beyond theory into practice.

Her mission has therefore become much larger than teaching data skills.
It is about helping people develop the judgment, curiosity, communication, and problem-solving mindset that define truly outstanding professionals.
Because in the end, organizations are not searching for people who simply know SQL or Python. They are looking for professionals who can think critically, solve meaningful problems, communicate with clarity, and create measurable business impact.
That is the difference between building data skills and building data professionals.

The Future of Data Careers

Artificial Intelligence is reshaping the data profession at an unprecedented pace. As AI continues to automate coding, data preparation, and even analytical workflows, the question is no longer whether technology will change the industry—it already has. The real question is: What will distinguish tomorrow's data professionals in a world where technical tasks are increasingly automated?

Critical Thinking Will Become the Greatest Competitive Advantage

As AI grows more capable of writing code, generating analyses, and automating repetitive tasks, the greatest value will no longer lie in simply knowing technical tools. Instead, it will come from the ability to think critically, identify the right problems, and ask better questions.

AI can generate answers, but it still depends on humans to ask the right questions.

The professionals who will thrive over the next five years are those who can move beyond execution to interpretation. Success will belong to individuals who understand business challenges, frame meaningful questions, and translate AI-generated outputs into actionable business decisions. While machines may process information faster, human judgment remains indispensable.

From Technical Experts to Strategic Decision Partners

The role of the data analyst is also evolving, future professionals will increasingly be evaluated not only by their technical proficiency but by their ability to influence business outcomes.
Technical skills will always matter. SQL, Python, Power BI, and machine learning remain foundational capabilities. However, as AI continues to automate many technical processes from writing code to generating reports the differentiator will be the ability to connect analysis with business strategy.

"The value of a data professional lies not just in analyzing data, but in helping the business make better decisions with it."

This shift requires professionals to understand organizational goals, communicate insights clearly, and provide recommendations that support informed decision-making. In other words, tomorrow's most valuable analysts will not simply produce reports, they will become trusted advisors who shape business strategy.

What skills do you think are currently underestimated but will become essential for the next generation of data professionals?

The Most Underrated Skills Are Often the Most Valuable
While technical skills dominate many learning roadmaps, some of the most important capabilities receive far less attention than they deserve.
Foremost among them is the ability to ask the right questions. The quality of any analysis, is ultimately determined by the quality of the questions that guide it. Without clearly defining the problem, even the most sophisticated tools and models can produce results that fail to address the real business need.

Equally important are communication and business understanding. Data professionals must be able to explain complex insights in ways that stakeholders can understand, collaborate effectively across teams, and connect every analysis to measurable business objectives.
These skills are often overlooked because they are harder to quantify than technical proficiency. Yet they are precisely the qualities that transform analysts into influential professionals.
As AI continues to reshape the profession, the message remains clear: technical expertise may get you into the room, but critical thinking, communication, business acumen, and the ability to ask better questions will determine how far you go.

Data as Business Strategy

In boardrooms across the world, data-driven has become one of the most frequently used phrases in business. Organizations invest heavily in analytics platforms, dashboards, artificial intelligence, and machine learning, all in pursuit of better decision-making. Yet, despite these investments, many critical decisions are still driven more by instinct than by evidence.

What does genuine data-driven leadership look like from your perspective?

Becoming truly data-driven is not about adopting sophisticated technologies, it's about cultivating a culture where data consistently informs decisions at every level of the organization. Effective leaders do more than review reports and dashboards. They empower their teams to think analytically, encourage people to ask better questions, and measure outcomes objectively. More importantly, they invest in developing data literacy across the organization so that evidence-based thinking becomes everyone's responsibility not just the job of the data team.

> ***"A truly data-driven leader creates a culture where data becomes part of everyday decision-making, not something that's only consulted after a decision has already been made."***

What's one misconception executives have about machine learning that data professionals should learn to address?

One misconception some executives have is that machine learning can solve every business problem. They sometimes expect it to do things that aren't technically feasible or assume it can produce answers regardless of the quality of the data or the nature of the problem.
As data professionals, we have a responsibility to set realistic expectations. That means explaining what machine learning can and cannot do and helping stakeholders understand when another approach may be more appropriate. Managing expectations is just as important as building the model itself.

Have you ever recommended against using AI or machine learning because a simpler analytical solution was more appropriate? What guided that decision?

Yes, there have been situations where a simple analytical solution was more appropriate. A familiar example was a project in which the business question was straightforward and could be answered through data analysis alone, without the need to develop a complex AI or machine learning model.
The decision was guided by the business need rather than the technology. If a simple analytical approach can provide stakeholders with the insights they need to make informed decisions, there is no reason to introduce unnecessary complexity.

Industry Insight

Africa's digital economy is expanding rapidly. Across industries from banking and healthcare to agriculture, education, logistics, and e-commerce, organizations are generating more data than ever before. While much of the global conversation centers on artificial intelligence and advanced analytics,

Looking at Africa's data ecosystem, where do you see the biggest opportunity that many professionals are currently overlooking?

Africa doesn't need more professionals replicating projects from online tutorials. It needs more professionals solving the real challenges facing African businesses and communities.

Too often, aspiring analysts spend countless hours recreating popular datasets and portfolio projects found online. While these exercises help develop technical skills, they rarely address the unique challenges businesses encounter every day.

> ***"We don't need more copied projects. We need more people using data to solve the problems around them."***

From improving financial inclusion and healthcare delivery to optimizing agricultural production, strengthening educational systems, and enhancing logistics networks, Africa presents countless opportunities for data professionals to create meaningful impact.

Rather than asking, **"What project should I build?"** professionals should ask a more important question:
"What problem around me needs solving?

As African businesses increasingly embrace artificial intelligence, where should a growing company make its first investment in data capabilities before adopting advanced AI—and why?

Before AI, Build a Strong Data Foundation

Reliable decision-making begins with reliable data. Organizations must establish the right processes, governance practices, and quality controls to ensure that their data is accurate, consistent, complete, and trustworthy.

> ***"Without trustworthy data, it's difficult to make good business decisions, and even the most advanced AI won't produce reliable results."***

Artificial intelligence is only as effective as the information it learns from. Poor-quality data inevitably leads to poor-quality insights, regardless of how sophisticated the algorithms may be, building a strong data foundation is not simply a technical requirement—it is a strategic business investment. Companies that prioritize data quality today will be better positioned to unlock the full potential of analytics and AI tomorrow.

Leadership & Influence

Leadership in data extends far beyond building dashboards, writing code, or deploying machine learning models. It is equally about developing people, sharing knowledge, and creating opportunities for others to grow.

How has teaching others influenced the way you solve data problems yourself?

Explaining technical concepts to beginners has taught her to strip away unnecessary complexity and focus on what truly matters. Every lesson, mentorship session, and piece of content reinforces an important principle: if you cannot explain a concept simply, you may not fully understand it yourself.

"Teaching Deepens Understanding"

Teaching has taught her that true understanding is being able to explain a complex idea in a simple way.

This mindset has fundamentally changed how she approaches data problems in the workplace. Rather than jumping immediately into SQL queries, Python scripts, or machine learning models, she now spends more time understanding the business challenge, asking thoughtful questions, and defining the problem before considering the technical solution.

what's the advice you think is overrated?

Stop Collecting Tools. Start Solving Problems.

One piece of advice she think is overrated is simply telling aspiring data analysts to learn Excel, SQL, Power BI, Python, and then move on to the next tool. While these tools are essential, learning them alone isn't enough.
We place too much emphasis on acquiring tools and not enough on applying them. Stop collecting courses and start using what you already know. Build projects, solve real problems, share your work, and teach others. That's where real competence, confidence, and growth come from.

what impact would you hope people remember more: the models you built or the people you developed?

"Building People Is the Greatest Legacy"

Technology will continue to evolve, but investing in people creates a lasting ripple effect."

While she is proud of the models she has built and the business problems they have helped solve, she hopes her greatest legacy will be the people whose lives she has impacted. If she has helped someone gain clarity, build confidence, launch a career, or become a better problem solver, that is the impact she values most.

Reflection

Every successful career is shaped not only by achievements but also by lessons learned, beliefs challenged, and perspectives refined over time.

Looking back, what's one professional belief about data that you've completely changed your mind about?

One belief she has changed her mind about is that every problem requires a technical solution. Earlier in her career, she was excited about building models and using advanced techniques. Today, she recognizes that sometimes a simple analysis is all that is needed.

"What matters most is solving the right problem, not using the most advanced approach."

What's a piece of advice you often give that people initially resist but later realize was exactly what they needed?

Sharing your work publicly. Many people resist because they say they're introverts or they're afraid of being judged.
But visibility creates opportunities. If no one knows what you're capable of, it's much harder for those opportunities to find you. You can be highly skilled, but if no one sees your work, they'll never know the value you can bring.

When you're mentoring someone, what signals tell you they are ready to think like a data professional rather than simply complete tasks?

If someone is starting to think like a data professional when they begin asking better questions instead of jumping straight into writing code.
They want to understand the business problem first, clarify what's being asked, and think about the best way to solve it before choosing a tool or writing a query. That's when you know they're thinking beyond completing tasks and focusing on solving problems.

Your Books

Writing was never about adding another title to the growing library of data books. It was about addressing questions she encountered repeatedly from aspiring professionals, questions that extended far beyond learning SQL, Python, or Power BI.
Both books reflect different stages of the data career journey.

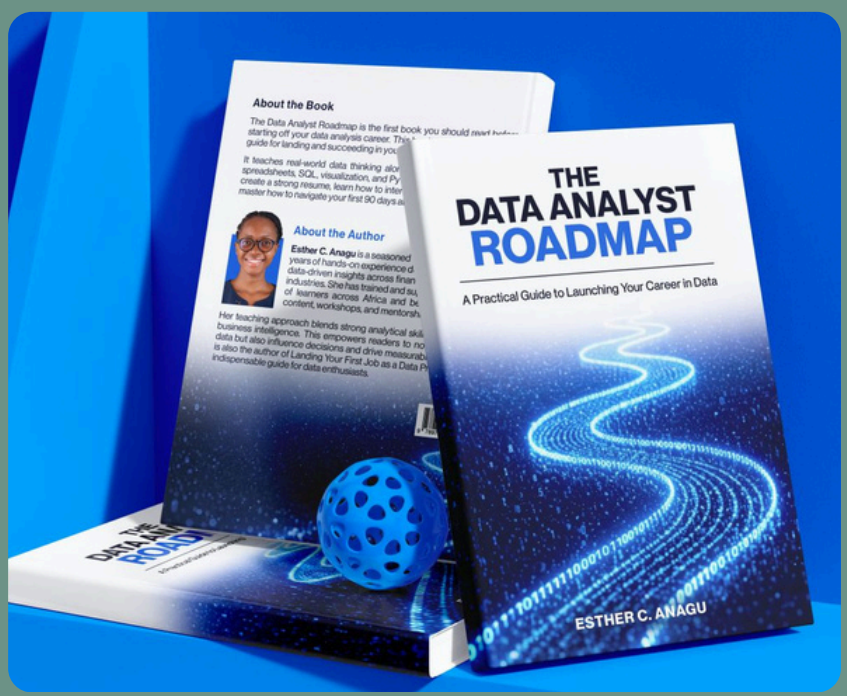
Landing Your First Job as a Data Professional

The purpose of the first book was to help people who had been learning data understand how to land their first role. It focused on breaking into the industry.



The Data Analyst Roadmap

Your second book focuses on building a sustainable career in data.
Yes.
Many people teach the tools, but very few teach you how to think like a data analyst. That realization became the inspiration for the second book.



If readers remembered only one idea after finishing both books, what would you hope that idea is?

"Don't make learning tools the end goal. The end goal should be solving problems."

Excel, SQL, Power BI, Python, and other tools are important, but they're simply a means to an end. Tools will continue to change, but the ability to think critically, ask the right questions, and solve real business problems will always be valuable. That's the mindset I hope every reader takes with them throughout their careers.

Imagine it's 2035 and someone is reading about Esther Anagu's contribution to the data ecosystem. What would you hope that story says?

I hope the story says something like this:
"Through Esther's resources, I implemented the strategies she shared, and they helped me land my first opportunity. I went on to use those same principles to mentor others, many of whom are now working in great companies and organizations. Today, I'm a Senior Consultant, and I'm paying forward what I learned."
If that's the story people tell, then I'd know my work created an impact that extended far beyond me.

DataGist Signature Question

What's the one lesson you'd want every aspiring data professional to remember?

Think. Practice. Share.

Don't just learn, apply what you're learning. Build projects, solve problems, and keep improving through practice. That's where real growth happens.
And don't keep your work to yourself. Visibility matters. Share what you're building because opportunities often come from people seeing what you're capable of.

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