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Leveraging Offshore Outsourcing to Augment AI and Automation Solutions

Learn how organizations can use offshore outsourcing to develop transformative AI and automation solutions.

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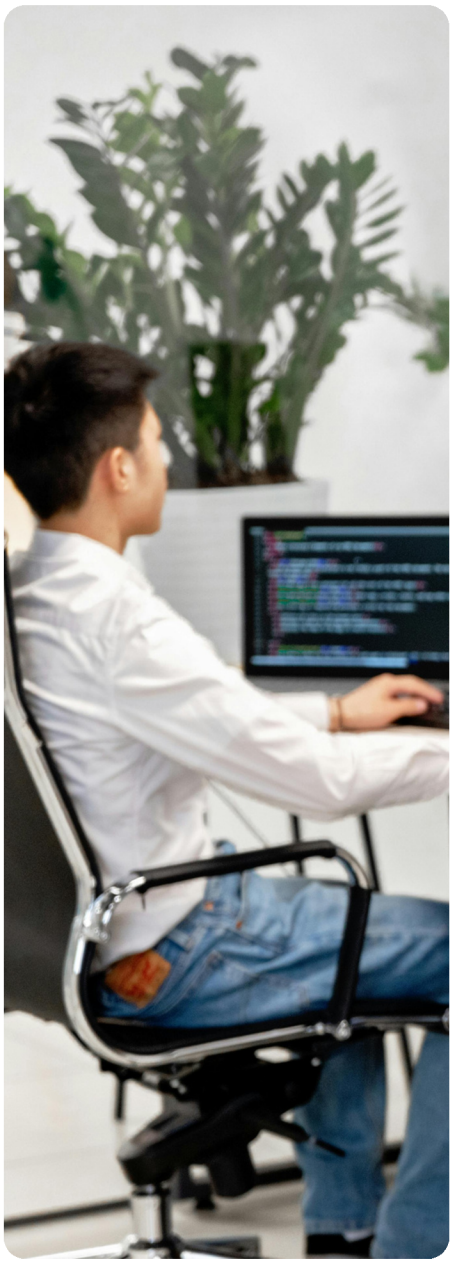
The takeaway:

The nature of offshore outsourcing has changed. In the past, many organizations used offshore workers to carry out manual labor or repetitive, menial jobs. Today, the focus has shifted. Instead, successful businesses are using offshore teams to create tailored, data-driven tools.

Augmented AI and automation solutions have the power to increase efficiency and improve productivity for any organization. Offshore engineers and data scientists can build those solutions, all at a reasonable cost.

Background



Artificial intelligence and other digital tools have dominated the public conversation in recent years – and no wonder. Automation tools like RPA, and intelligent tools like AI, have the potential to drive greater insights, analyze huge data sets, and make sense of knotty business problems.

But research shows that most organizations are under-utilizing digital tools. Even when companies do implement automated processes, they're only touching the tip of the iceberg. The true promise of AI and RPA is still going unmet.

In large part, that's due to a lack of human expertise and know-how. Organizations need data scientists and architects to create tailored digital solutions that work for them. Without the right personnel, companies can't harness the new technology. Intelligent automation and artificial intelligence aren't one-size-fits-all tools that can be pulled out of a box; they need to be fit to purpose.

That's where offshore outsourcing comes in. Offshoring gives organizations access to global experts and world-class data scientists – all at a reasonable cost. Businesses can leverage offshore teams to build and implement new digital solutions for their companies. This enables companies to augment their existing tools and improve their performance through greater operational efficiency, deeper insights, and increased customer delight.

The Digital Shortfall

A recent Gallup poll revealed a sharp disconnect between goals and implementation when it comes to artificial intelligence. Although 93% of business leaders say they've begun implementing AI tools, only 33% of employees are aware of the new tools. Even in white collar workplaces, only 44% employees know that their organization has begun implementing AI solutions.

Across industries, 70% of employees say they have never used AI tools in the workplace.

What's more, research has found that even when AI is deployed in the workplace, it often fails to meet expectations. 77% of employees who use AI on the job reported that the new technology was adding to their workloads, instead of easing their workflows. 47% of those using AI said they had no idea how to meet their new productivity goals.

The message is clear: AI, as it is currently being used, is not meeting its potential. Instead of creating saving employees time, and freeing them from tedious manual tasks, AI in its current iteration is failing to deliver the solutions that businesses need.

A new approach to developing AI solutions

AI uptake has not kept up with its early promise. That doesn't mean that AI can't drive success in the workplace: it simply means that businesses need to shift their approach.

Artificial intelligence, coupled with other automation tools, has almost limitless capabilities to speed up business processes, improve forecasting, make smarter decisions, and even connect more fully with customers. However, if businesses want to take advantage of everything the new technologies have to offer, they need to change their approach.

Like any other technology, AI works best when it's implemented as part of a deeply meaningful, tailored strategy. If AI and automation are truly going to succeed, organizations need to create a purpose-built solution and invite workers to participate in it.

That means working with a team of global experts who can use the best available tools to create a digital strategy for the whole organization. In most cases, the best way to achieve that goal is through offshore outsourcing. Successful businesses are already harnessing the promise of offshore teams to build and implement new data-driven tools.

It's time for a new definition of offshore outsourcing. Achieving this means, first of all, examining the shift that has taken place in offshore outsourcing over the years.

Trends and transformations in offshore outsourcing

Offshoring dates back hundreds of years. The practice exponentially increased in the 1970s, though, when manufacturers began to relocate plants to overseas locations. Over the next few decades, more organizations found ways to increase efficiency and lower costs by outsourcing repetitive, back-office tasks.

Today, many of those back-office tasks can be done successfully by digital tools. Organizations can harness software to speed up repetitive tasks in areas like marketing, accounting, customer service, and data management.

As a result, companies no longer need to outsource these processes to workers in other countries. However, there's still a significant demand for offshoring…it's just that the nature of the offshored work has changed.

The new face of offshore outsourcing

Instead of using offshore workers to do menial tasks, companies can now contract with highly skilled offshore teams to take on significant AI and automation projects. Instead of taking over repetitive tasks, the next generation of offshore workers is building the digital infrastructure to enable automation of those tasks. Data scientists, DevOps engineers, and automation engineers located oversees can all work closely with businesses in the United States to build a strong architecture that will support greater automation and a deeper penetration of AI.

Until recently, it was still highly cost-effective to outsource projects in areas like:

Data management

- Data entry
- Data cleansing
- Database management

Accounts payable

- Accounting records
- Invoice management
- Financial data tracking

Today, technology is already eliminating the need for human workers to do these tasks. Robotic Process Automation, or RPA, has the capability to take over many of the above tasks, and more. We'll also see how RPA can be augmented for an even more efficient workplace.

What is RPA, and what does it do?

Robotic Process Automation (RPA) uses automation technology to carry out repetitive tasks, especially tasks relating to data management. RPA is sometimes also called “software robotics.” RPA can carry out tasks like:

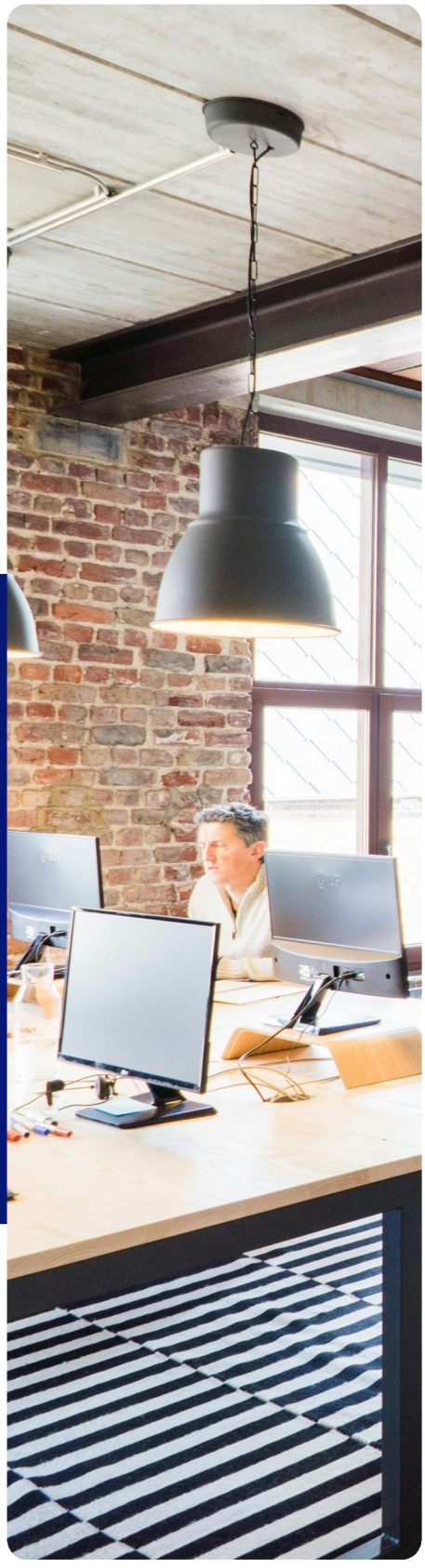
- Filling out online forms
- Extracting data from forms
- Moving data
- Automatically updating databases and syncing information across multiple platforms
- Scheduling appointments and sending reminders

RPA Use Cases

RPA is used extensively in the finance sector. The technology also has deep penetration in sectors like e-commerce, healthcare, and insurance.

- In retail, RPA is used to process customer feedback and keep records. The technology is also used in order management. It’s even used to send customers order confirmations.
  In healthcare, RPA is used for information management, claims processing, and payment cycle management.
- In insurance, RPA is used for claims processin and regulatory compliance.
- In finance, RPA is used for fraud detection and anti-money laundering verification. It’s also used for routine tasks like opening a bank account.

One way to understand RPA is that it is a highly rules-based system. It excels at simple, repetitive tasks. It’s not a creative or an analytic tool; instead, it’s designed to operate within a strictly defined system. Any process with clear rules and parameters can potentially be a use case for RPA.



Offshore workers – software engineers and data scientists - can create customized RPA tools for any organization that needs to automate repetitive tasks. What’s more, today’s best engineers can go far beyond RPA’s simple capabilities.

Today, new technology is allowing software engineers to augment RPA so that it can perform more complex tasks. That’s the kind of work – developing and extending the reach of automation – that can be done by overseas experts. Offshoring this engineering process can yield lasting results for any organization.

Augmented RPA: a smarter digital tool

The phrase “Augmented RPA” refers to software solutions that build on simple automated processes to create more complex capabilities. It’s the next generation of automation. Typically, this means combining RPA technology with elements of artificial intelligence and business workflow automation. Augmented RPA is also known as intelligent automation.

Done right, intelligent automation augmented RPA gives organizations the ability to increase accuracy and precision in administrative processes. Intelligent automation streamlines workflows and boosts efficiency, reducing the amount of time workers need to spend on tasks. It can go far beyond what RPA is capable of, so that it makes a more meaningful difference in the workplace.

Intelligent automation can be used to:

- “Read” and process data from handwritten forms
- Sort and analyze data from different sources
- Analyze structured and unstructured data
- Detect content and sentiment from documents, including emails

Most importantly, intelligent automation is capable of learning from its own mistakes. Just like a human worker, intelligent automation develops areas of expertise and begins to make predictions based on that expertise.

One common example of intelligent automation is predictive text, which can literally complete sentences for a human being sitting in front of a computer. Predictive text becomes more accurate over time, as the algorithm grows more familiar with the user’s preferences. In the same way, every intelligent automation application becomes more effective the longer it’s in operation.

Intelligent automation at work: a use case

Intelligent document processing is a good example of intelligent automation at work.

RPA tools can extract data from documents, but only when that data is highly structured: it needs to be uniform, formatted, and printed.

Intelligent automation tools can read handwritten documents. They can also read smudged or distorted documents. They can understand the meaning of a checked or unchecked box on a form, and they can even use inference to decipher messy handwriting.

This makes a huge difference to HR and accounting departments, for example, when they're processing tax forms or timesheets. Instead of manually reading documents and inputting them into a database, workers can simply scan the documents. If the automation tool can't "read" part of a form, it alerts the human employee, who then reads and inputs the correct information.

A few other use cases for intelligent automation

Intelligent automation tools excel at collecting, collating, and analyzing data from disparate sources. These skills are invaluable in areas like:

Retail and marketing

- Smart "bots" can collect customer data from prior surveys, sales, and other sources in order to build a stronger understanding of customer preferences.
- Automated processes can deliver personalized product recommendations and marketing materials

Customer service

- Chatbots can answer customers' questions and direct more complex queries to the appropriate staff member
- Automated tools can automatically update databases with information from multiple sources

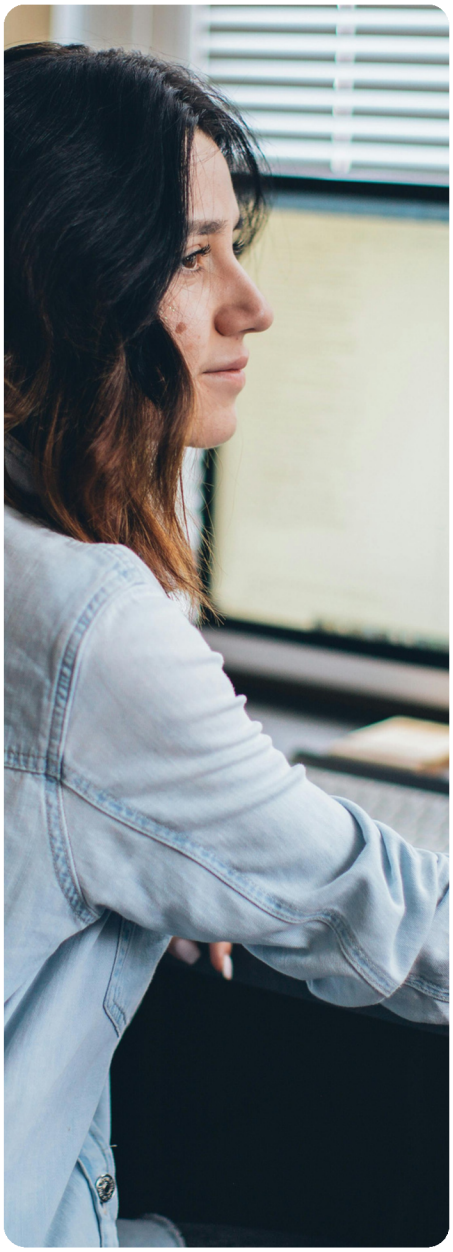
  Bots can schedule follow-up emails and texts (or, depending on the industry, calls and visits)

Product development

- Automated tools can cull data from social media and surveys to build up a picture of customer preferences. This allows designers to create products in line with customer tastes.

Augmented automation is a game changer for businesses. In a similar way, augmented AI can take organizations to the next level.

Beyond automation: taking AI to the next level



Augmenting AI means designing AI tools that can improve workflows for everyone in the organization.
We've talked about how currently, many workers who do use AI find that it's slowing them down and adding to their workload. That's because much of the AI in use today is designed to operate within narrow constraints, without human intervention. This means that most AI workflows are limited in nature. Typical examples are spam filters, autofill, and search suggestions.
AI's narrow constraints also creates challenges for anyone working with it. Think about how tedious it can be to change your spam filters, adjust autofill, or override predictive text. Those challenges also arise in the workplace.

Augmented AI is different.

Augmented AI is designed to be collaborative and work alongside human beings. (It's also sometimes called "intelligence amplification," or "augmented intelligence.") The goal is not to take over a human project, but to make it easier and achieve better results.
Augmented AI is often used as a diagnostic tool, for example. In one well-publicized study, it was found that the digital tool didn't perform as well as human beings when it came to detecting cancer cells. However, when the humans and the AI worked together, the results far exceeded what either one could do alone.
In manufacturing firms, maintenance teams often use augmented intelligence tools to monitor industrial machines. Today's best digital tools can spot machine defects and create detailed warnings when equipment needs to be repaired. Again, this approach works because the tools are operating alongside human employees, who can verify the AI diagnosis and take the right action to repair the equipment.
In other words, artificial intelligence works best when it's part of a shared workflow.

How can organizations develop augmented intelligence and automation solutions?

Developing strong digital solutions can feel daunting. In reality, though, it's a matter of following the right steps and building the right team. It's worth emphasizing that "building the right team" doesn't mean hiring a full-time IT department. In most cases, it's more cost effective and more overall efficient to outsource the technical side of things to an offshore team. We'll get into that more below.

Keys to Augmenting AI and Automation

There are a few key pieces in every successful AI and automation implementation. We'll also talk about how to find the right workers to carry out these processes.

Creating strategic goals

The first stage in the process should involve consultations with decision makers at all levels of the organization. At this stage, leadership should create a specific set of goals for the digital upscaling. That should align closely with the organization's purpose and with existing business goals.

Building Attainable Benchmarks

AI and automation are data-driven approaches. Any project using these tools should include clear benchmarks to track progress and identify areas of challenge. At the outset, leaders should create a set of yardsticks to determine whether the program is working.

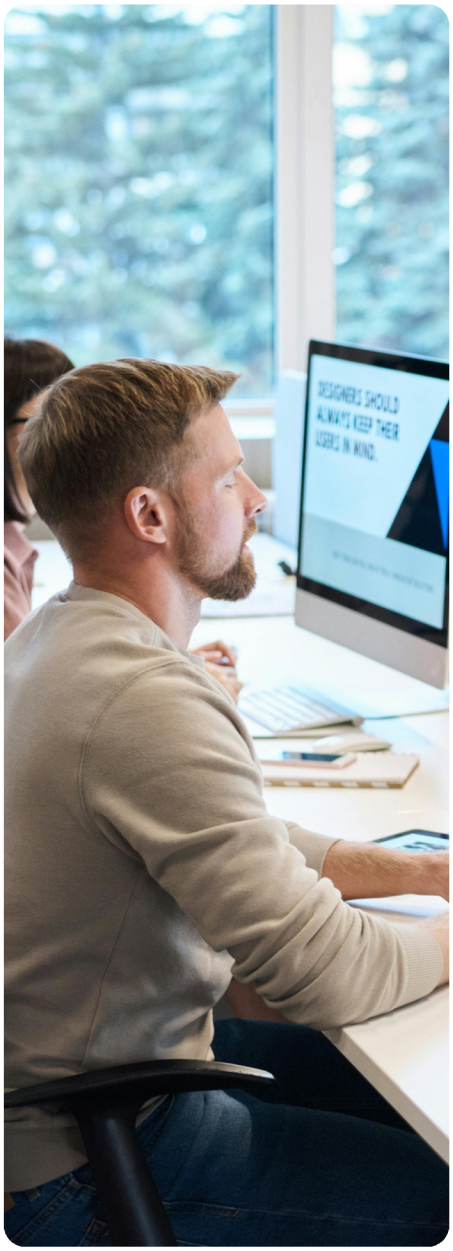
Implementing a Culture of Continuous Learning

Intelligent tools work best when companies create a culture of continuous improvement. AI models should be designed to learn and evolve based on feedback from human employees. Likewise, human teams should have regular training on using AI tools so that they are fully capable of using the new technology. By extension, developers should keep in mind that the tools they design should be intuitive and easy to learn for the specific employees that will be using them.

Working with the Right Development Team

These technologies are still new and developing. Working with the right team of developers and engineers will ensure that solutions are purpose-built and implementation is successful. The right IT experts can also troubleshoot any issues that arise and build improvements to the system as needed.

The right skills for the job at hand



It takes a highly skilled team to develop the right digital solution. Great developers and engineers possess a combination of hard and soft skills so that they can build effective tools and communicate with non-technical staff.

The ideal AI and automation engineers should possess the following skills:

Communication

As we have seen, creating an effective AI / automation system requires a strong understanding of the broader organization. A great engineer knows how to communicate with decision makers and with the people who will be using the new tools. Excellent communication skills enable a better understanding of the project's goals.

Empathy

Empathy is what allows people to put themselves in someone else's shoes. It's a secret weapon for engineers, since it ensures that their solutions meet the needs of the people who will use them. It's also a valuable skill when it comes to training and troubleshooting, since it allows engineers to imagine how people are using their tools.

Programming languages

AI and automation engineers need a strong knowledge of programming languages used to build and implement models. That typically means a knowledge of Python, R, C++, and Java.

Big Data tools

Today's digital tools rely on big data. A strong understanding of tools like Spark, Hadoop, and MongoDB are critical for engineers.

Data analytics

Data analytics is a crucial piece of every automation and AI project. A solid grounding in analytics, as well as ongoing training in the newest approaches, is critical for a successful engineer.

ML and Deep Learning algorithmic tools

Successful engineers need a strong understanding of tools like PyTorch, Theano, TensorFlow, and Caffe. They should also have expertise working with convolutional neural networks and recurrent neural networks. These are the tools that enable use of ML and Deep Learning algorithms.

Mathematics

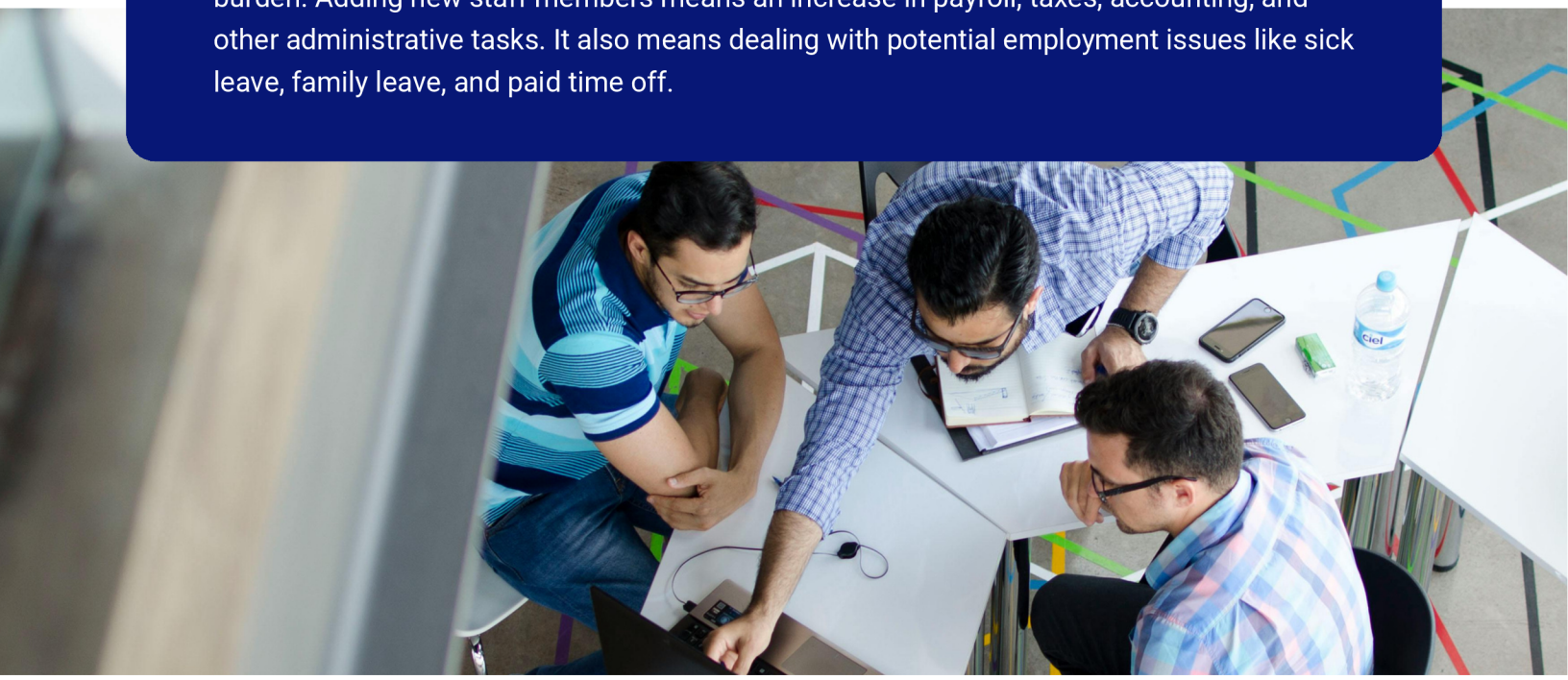
A strong grounding in mathematics, in particular probability and statistics, is essential for engineers working on automation and AI projects.

Potential challenges in hiring engineers

Hiring the right team is full of potential challenges. Finding people with the requisite expertise – and the right combination of hard and soft skills – is difficult. That difficulty is compounded by the relative newness of this field. AI and automation experts are relatively rare.

That brings us to the next challenge: paying for good workers. Highly skilled AI and automation engineers are in demand, and that demand seems likely to continue growing. Since there is a shortage of people with the right skillset, they can command high salaries. For many organizations, the cost of hiring engineers is prohibitive.

In many cases, hiring engineers can also create an administrative and human resources burden. Adding new staff members means an increase in payroll, taxes, accounting, and other administrative tasks. It also means dealing with potential employment issues like sick leave, family leave, and paid time off.



The solution: offshore outsourcing

For all of the above reasons, many organizations have begun outsourcing their AI and automation tasks to offshore workers. Done right, this process can eliminate the headaches inherent to hiring engineers locally. It can also ensure that organizations have access to global expertise and cutting edge technology.

Working with offshore engineers allows businesses to:

- Choose from a pool of global talent, guaranteeing access to highly skilled workers
- Reduce labor costs and overall operational expenses
- Find experts familiar with new technologies and approaches
- Contract with workers who are highly motivated and self-driven
- Reduce administrative and HR costs
- Choosing the right offshore workers

We've talked about some of the challenges inherent to the hiring process. How can organizations bypass those challenges when they work with offshore teams?

The best option is to work with a proven offshore staffing company. The right staffing company has a wealth of experience working with contractors in your field. They will know exactly how to:

- Find outstanding workers in your field
- Vet and check references
- Negotiate appropriate pay scales
- Manage payroll, taxes, and other administrative tasks
- Serve as the employer of record
- Provide facilities and equipment for offshore teams to work in
- Increase retention rates

Results that uplift and transform

Working with the right offshore staffing company is a revolutionary experience. It means that organizations have the freedom to choose the best available workers, with access to the most innovative tools and technology. It's a cost-effective way to implement bold, transformative new solutions like augmented intelligence and AI.

Ready to access the next generation in digital solutions? Contact Connext for a free consultation on augmenting AI and automation tools.

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