THE BUYER'S GUIDE TO SELECT A CORPORATE TRAINING PROVIDER FOR SOFTWARE ENGINEERING

3 QUESTIONS TO ASK YOURSELF TO FIND THE RIGHT TALENT DEVELOPMENT PARTNER

GENERAL ASSEMBLY

CONTENTS

INTRODUCTION

Innovation requires tech talent—and there isn't enough of it to go around. Gartner reports that in late 2022, 86% of CIOs faced increased competition for qualified candidates, with 73% voicing concern about IT talent attrition. Lack of talent stifles progress: two-thirds of IT execs say not having the right team members is the main reason they can't adopt new technologies.

Savvy leaders are taking swift action to get ahead of the problem. Upskilling and reskilling is now the top priority of 59% of learning and development pros worldwide, up 15% from 2020. Household names like JP Morgan Chase and Amazon have invested millions to future-proof their workforces and PwC will spend $3 billion to upskill its entire workforce of 275,000 employees over the next couple of years.

How are they doing it? For many companies, software engineering bootcamps are the key. Gone are the days of needing a four-year computer science degree to become a programmer. With a bootcamp, employers can reskill promising talent into software engineers in as little as 12 weeks.

But despite tech bootcamps' growing popularity, there isn't a one-size-fits-all formula for training success. Every engagement is different, and you'll want to pick the best partner for the job—one that has a proven track record of working across industries to cultivate software engineering talent.

A sustainable tech talent pipeline all starts with asking the right questions.

In this guide, we describe the increasing demand for tech talent, outline three key questions to ask potential training partners, and detail the role General Assembly plays in the modern tech talent revolution.

Let's jump right in.

PART I

THE CONTEXT: INNOVATION IMPERATIVE

TOP INDUSTRIES IN NEED OF TECH TALENT

Developing a deep bench of software engineers is mission critical for companies in these cutting-edge sectors:

FINANCE

Money moves faster, easier, and more seamlessly than ever. Technologies like APIs and microservices are essential to building the agile banking infrastructures necessary to power modern financial products and services.

HEALTHCARE

Between tech-powered patient experiences and data-driven treatment decisions, healthcare companies are striving to keep pace with everything from electronic medical records to surgical robots.
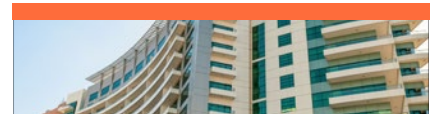
HOSPITALITY

From VR-powered destination tours to facial recognition technology to authenticate guests, the hospitality industry is undergoing a rapid transformation. Next time housekeeping shows up to clean your room, you might find yourself looking at a robot instead of a real person.
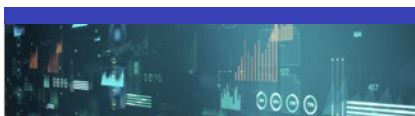
PROFESSIONAL SERVICES

From client relationship management to analytics and business intelligence, next-gen tech, back-end tools, and customer-facing products transform how consultants serve their clients and create value.

MANUFACTURING

As manufacturing enters the "fourth revolution," skilled tech talent transforms workflows and industrial production with AI, analytics, and the Internet of Things.

RETAIL

Today there are more software engineers working in the retail industry than in Silicon Valley. Traditional retailers are upending business models and exploring every avenue they can to provide demanding consumers with fast, fun, and frictionless shopping experiences.

THE RISE OF THE T-SHAPED EMPLOYEE:

A NEW SKILLS PROFILE FOR MODERN TIMES

The engineering skills required to move organizations forward are changing. In the past, best practices for assembling tech teams tended to fall into two camps:

Traditional Strategy **#1:** **HIRE GENERALISTS** Skilled IT pros who could weave in and out of projects interchangeably.	**Traditional Strategy** **#2:** **HIRE SPECIALISTS** People whose abilities were fairly narrow, but who were experts at what they did.

Today, a new model is emerging that's the best of both worlds— the T-shaped employee.

T-shaped employees possess skills that go deep in one area, along with a broad base of supporting skills and knowledge. For example, an employee might be a cloud computing expert, but also well-versed in front-end frameworks or working with data structures.

T-shaped employees bring a host of benefits to your organization. They're versatile contributors. They protect you against losing team members— and then being stuck without the capabilities you need. They make it easier to plan teams, identify blind spots, and optimize your overall effectiveness. In a nutshell, T-shaped employees represent the skill set of the future.

*DEGREES VS. SKILLS:

THE HIRING PARADIGM SHIFTS

Skills-based hiring is gaining steam—especially in the engineering space. This is, in part, a reaction to the degree inflation popularized in the early 2000s. Companies began **introducing degree requirements** to their existing job descriptions, even though the actual skills needed to perform the job hadn't changed. This trend peaked around the Great Recession of 2008–2009.

Then, a change: The number of open tech jobs began to increase in the 2010s and companies needed to broaden their search to fill open roles. As a result, the hiring emphasis shifted toward practical skills and prior experience—as opposed to mere degree credentials.

The pattern has continued to this day.

Some of the biggest tech players in the industry, including **Apple, Google, and IBM**, are now hiring nontraditional candidates. In fact, IBM's vice president of talent **revealed to CNBC** in 2017 that nearly 15% of the company's U.S. hires possess valuable skills and expertise without necessarily holding a four-year degree—and that the company was actively broadening its talent search beyond college graduates to include candidates who've acquired hands-on skills via a bootcamp or vocational class. More broadly, global companies such as Boeing and Walmart are **participating in programs** to facilitate skills-based hiring practices.

Along these lines, a report from Burning Glass found that between 2017 and 2019, employers **reduced degree requirements for nearly half of middle-skill positions**—especially IT jobs, because they're among the most difficult to fill.

But is simply dropping degree requirements enough to fill the glut of vacant tech roles?

Given there are roughly **five job vacancies for every software engineer**, employers need to ensure access to a steady pipeline of trained talent to keep pace with their digital demands.

PART II

THE STRATEGY: BOOTCAMP ADVANTAGES

3 REASONS EMPLOYERS ARE TAPPING TECH TRAINING PARTNERS TO MEET TALENT NEEDS

Bootcamps partner with employers to learn which real-world skill sets are in high demand—and connect their grads with a bridge to employment.

Here are 3 reasons why bootcamps have become the hiring strategy of choice.

REASON 1

TECH TALENT IS HARD TO FIND—AND HARDER TO KEEP.

By now, we all know that the playing field for tech talent is ultra competitive, with two out of three organizations hiring to close potential skills gaps. And the longer roles remain open, the more costly they become. By some estimates, the skills shortage could lead to a whopping $8.5 trillion loss in revenue in 2030.

Complicating matters, hiring managers are also expected to lean into diversity, equity, and inclusion (DEI) goals—and finding a rich pool of diverse tech talent is increasingly challenging. According to McKinsey, there were **14% fewer women in junior engineering or product positions and 15% fewer in first-level manager positions** than in other nontechnical roles. Along the same lines, Black workers **account for just 4.5% of software developers**, despite comprising 13% of the broader workforce.

Even if a company manages to find and hire a great candidate, the challenge is far from over. Data shows that **four in 10 employees are thinking of looking for a new job** due to stress and burnout—and tech talent is notoriously hired one day, gone the next.

HOW BOOTCAMPS HELP:
A high-quality bootcamp can provide employers with a steady stream of job-ready tech talent that's tailored to the skills they need most.

REASON 2

LEGACY SYSTEMS AND TALENT STALL TRANSFORMATION.

Businesses struggling to meet their transformation goals are continuously reminded of an old aphorism: if you're not moving forward, you're going backward. Along these lines, legacy systems create a host of problems—from security risks to platform integration issues. IT executives say the talent shortage is the main barrier prohibiting the adoption of 64% of emerging technologies that would otherwise enable innovation.

In addition, talent hasn't transformed with new technologies. Companies have a set of employees with untapped potential and valuable institutional knowledge—but their skills are no longer up-to-date. The alternative to upskilling or reskilling is, unfortunately, sometimes projects put on hold and layoffs. According to one source, there have already been over **202,399 employees laid off** in 2023.

Plus, outdated systems are difficult to learn—and an obstacle to attracting and retaining top talent. According to the **State of Software Happiness Report 2019 from G2**, 52% of workers said they have "become dissatisfied at work due to missing or mismatched software," 24% said they have "considered looking for a new job" because they "didn't have the right software," and 13% of employees admitted they've left jobs because of the software they had to use.

HOW BOOTCAMPS HELP:
Bootcamps give employers the opportunity to upskill or reskilll existing talent so they're up to speed on the latest technologies.

REASON 3

COLLEGE GRADS NEED EXTRA SUPPORT TO BECOME FULL CONTRIBUTORS.

The third reason companies may look to a bootcamp is that college students often need more hands-on experience before they can successfully enter the workforce.

A typical four-year computer science curriculum centers around the theoretical aspects of computation and problem solving. Much of the learning revolves around abstract thinking as opposed to hands-on practical application. Plus, skills learned in the early years of college may already be outdated by the time graduates enter the workforce. Finally, by some estimates, it can take up to nine months to onboard an engineer into a full-fledged, ==contributing team member==.

The learning curve can be steep for college graduates lacking experience coding on a team. From tutorial purgatory to ==magpie syndrome==, fledgling developers often spend lots of time trying to become proficient and performing many other tasks besides actual software development work.

The onboarding lag can impede the rapid progress necessary for companies to achieve their transformation goals, remain agile, and grow along with customer expectations. As Microsoft CEO Satya Nadella memorably ==put it in 2020==, "We've seen two years' worth of digital transformation in two months. From remote teamwork and learning, to sales and customer service, to critical cloud infrastructure and security—we are working alongside customers every day to help them adapt and stay open for business in a world of remote everything."

HOW BOOTCAMPS HELP:
Bootcamps can provide new hires with full-time or part-time coursework to accelerate their path to becoming a full contributor.
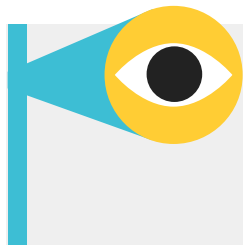
Software training program partnerships represent a bright spot in an otherwise grim reality, but with a plethora of choices, it's up to employers to ask the right questions and explore the value prop more thoroughly.

PART III

THE QUESTIONS: PARTNER PROMPTS

READY TO EVALUATE TRAINING PARTNERS? START WITH THESE 3 QUESTIONS:

QUESTION 1:

WHAT'S THE GOAL OF YOUR PROGRAM?

Clarifying your goals at the outset of a training engagement is crucial. That way you, your learners, and your partner are aligned around a shared definition of success from day one.

Here are three of the most common goals we've seen among our training partners:

- **"I want to train my existing employees with relevant skills."**

  Perhaps your organization has all the talent it needs—your people just need a skills upgrade. Company-wide transformations can be complicated, but the fact remains: your talent needs to be on the forefront of modern engineering or your innovation efforts will grind to a halt.

Thankfully, you can get great returns for leveling up your existing talent. People want to work for businesses that invest in them. Given that **74% of employees** say they're eager to learn new skills to improve their job performance, you're likely to be met with an eager and enthusiastic crowd. It's a win for everyone involved: You optimize your current workforce skills while improving employee satisfaction and retention at the same time.

In practice, General Assembly can help you build an academy for different parts of your workforce—or design a more comprehensive program that upskills the entire organization. Whether through part-time technical training courses or full-time reskilling training to transition employees into entirely new roles, we provide multiple paths to reach your hiring goals. We've even seen clients use our Reskill to Redeploy programs to avoid laying off employees with valuable institutional knowledge—something to strongly consider, especially in challenging economic times.

• "I want to onboard fresh talent faster."

Lastly, maybe you've filled your junior tech roles—but your new hires aren't as productive or impactful as you need them to be. In this case, you might consider General Assembly's full bootcamp activation or part-time courses, such as *Modern Engineering*, to transition your new tech talent to full deployment within your business.

Not only will you benefit with talent that has the skills they need to contribute, but a better onboarding experience has multiple benefits. Effective onboarding leads to employees who feel **up to 18x more committed** to their workplace, compared to employees who feel their onboarding was less effective.

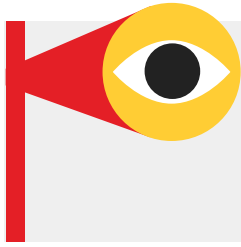### • "I want to access net-new, diverse engineering talent."

You have transformation projects coming down the pike, DEI goals that need to be met, and open roles that need to be filled—yesterday. Bottom line? You need net-new talent rich in diversity, trained on modern engineering skills—and ready to hit the ground running.

That's one of the reasons why our *Recruit-Train-Deploy* and *Apprenticeship* programs are picking up steam. Both models provide you with a fresh pipeline of contract or permanent junior tech talent available to work in either local or remote engagements—and purpose-trained to meet strategic objectives starting day one.

As an added bonus, some of our clients have even enjoyed 91% retention in year two2 when deploying one of these programs within their organizations. What's more, graduates from these programs tend to stick around longer than the average employee. Why? They feel a sense of loyalty to the business that gave them their first opportunity.

Ultimately, working with a partner who has addressed training issues successfully and designed programs that get results is essential to your long-term success.

Not all learning is created equal. We often see leaders make the mistake of deploying asynchronous learning that never gets used. To make real progress, leaders must carve out time their workforce can devote toward getting up to speed.

To ensure you're picking the right partner here are some things to look for:

Learning that's backed by science

As you make the rounds, you may come across lots of fancy words that describe the offered training, but don't be fooled—what you want is learning that's built for adult learner retention.

Make sure to ask these questions when you're evaluating providers:

- Does your learning experience include theory and practice?

- Is the curriculum aligned with current marketplace needs?

- What steps do you take to reinforce the material so it sticks?

In General Assembly programs, learners are taught modern engineering concepts by industry veterans—then apply those skills in real-world contexts for maximum retention. Additionally, learners benefit from built-in mentorship and personalized career guidance as they develop soft skills working closely with a cohort of fellow students.

Learning built for breadth and depth (read: T-shaped)

As we discussed earlier, the T-shaped employee is gaining popularity across the engineering landscape. These employees are supremely valuable because they possess deep knowledge and skills in a particular area of specialization, as well as broad abilities in related fields. This means they can make connections across different disciplines.

Make sure to ask yourself these questions to know if you're choosing the right partner.

- Are your learning offerings designed for both breadth and depth?

- How does the learning journey dovetail with the needs of the business?

- How does continuous investment in staff help with retention? Or ROI?

General Assembly's programs are designed with the T-shaped employee in mind. Broadly, we teach core skills that are the bread and butter of engineering—programming, debugging, and testing—as well as emerging skills such as cloud infrastructure, microservices architecture, and continuous integration.

Learning that includes real-world application

When it comes to training your workforce, learning for learning's sake isn't the aim — you want practical skills that can be immediately applied to drive the business forward. So be sure to focus on selecting a partner that enables learners to bring their newfound skills and knowledge back to your business.

Here are some questions you can ask potential partners:

- How much hands-on practice will learners get when they're in class?

- What projects do you introduce mid-course?

- Is there an opportunity to align projects to real business problems?

General Assembly courses incorporate the practical application of knowledge to solve real-world business problems, achieved through our diverse range of labs and capstone projects. Additionally, our programs enable students the ability to go deeper on business-aligned competencies wherever necessary.
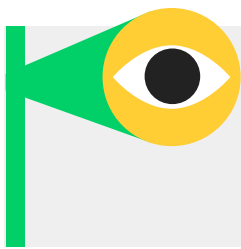
QUESTION 3:

DOES THE PARTNER DEMONSTRATE A TRACK RECORD OF EXCELLENCE?

When evaluating a partner to transform your workforce, you'll want to look for compelling social proof through three key lenses: instructors, students, and clients.

Here are the key signs to look for from each:

- **INSTRUCTORS with real-world experience**

  When looking for a partner, understanding who will be teaching your engineers and future engineers is really important. You know the old saying—those who can't do, teach. In this case, that's the wrong way to look at it. You'll want instructors who have in-field experience teaching your learners. That's because in the new world, one that's based on skills, hands-on ability to code will mean more than theory.

- **STUDENTS happy with their outcomes**

  Building net-new tech talent with practical skills is no easy task. Look for partners who have a track record of excellence reskilling and upskilling talent. It may feel counterintuitive, but make sure to ask for case studies, real student stories—and be sure to understand the scale at which the partner has transformed talent.

- **CLIENTS willing to speak on the program's behalf**

  There's nothing quite like hearing it from the source. When looking for a partner to help you build a future-proof workforce make sure they have client examples. Even better? A referral. Taking a call with a former or existing training program graduate can shine the light on potential and pitfalls.

  With so much on the line, you shouldn't have to settle for less than a partner who has a track record of excellence in every area. They should be able to speak to the background of their instructors, show examples of real students, and happily point you to case studies or introduce you to a former learner. If not, it may be a red flag.

PART IV

THE ANSWER: GENERAL ASSEMBLY

PARTNERING WITH GENERAL ASSEMBLY

Since 2011, General Assembly (GA) has launched the technology careers of tens of thousands of diverse individuals and cultivated emerging tech talent pipelines for 400+ of the world's leading employers.

We've worked with more than 40 of the Fortune 100, including businesses such as Adobe, Intuit, and Guardian, to help build their teams of the future. And as part of Adecco Group, the world powerhouse for everything talent, we're the go-to resource for cultivating tomorrow's workforce today.

Matched to your needs, we offer a number of programs to generate talent for your high-demand tech positions.

If you need to UPSKILL your workforce, consider:

MODERN ENGINEERING: ACCELERATE YOUR DIGITAL TRANSFORMATION

This instructor-led, live and online course helps organizations accelerate their digital transformation agenda and retain talent—while building internal T-shaped engineering capabilities.

Top business benefits include:

- Build engineering capacity within your tech team.

- Transform talent into job-ready software engineers.

- Solve real engineering problems through capstone projects.

Your learners will walk away with practical working knowledge and hands-on experience in the essential components of modern engineering, from cloud infrastructure to microservices to containerization—all delivered by the training brand trusted by the biggest names in tech.

Get the details on Modern Engineering here $\longrightarrow$

If you need to RESKILL your workforce, consider:

RESKILL TO REDEPLOY: FILL HARD-TO-HIRE TECH ROLES.

You have a workforce in place with existing talent that understands your culture and possesses vast institutional knowledge. Don't let that go to waste. Instead, partner with us to reskill your high-potential employees for hard-to-hire tech roles.

Learn more about the value of reskilling ⟶

RECRUIT-TRAIN-DEPLOY: BUILD YOUR OWN TECH PIPELINE.

Sometimes you need a soup-to-nuts solution—and that's what Recruit-Train-Deploy offers. We help you build your own pipeline of contract or permanent talent with our train-to-spec programs for both local and remote engagements.

Explore our Recruit-Train-Deploy solution ⟶

APPRENTICESHIPS: FAST-TRACK HIGH-POTENTIAL TALENT.

The GA Apprenticeships program pairs diverse pods of junior talent with senior technical leadership to tackle your IT and digital projects, managed by our partners at **Interapt**, with the option to then hire top performers into full-time roles.

See what a next-gen Apprenticeship looks like⟶

READY-TO-HIRE: FILL ENTRY-LEVEL TECH ROLES TODAY.

General Assembly has a proven track record of successfully producing job-ready junior tech talent from a wide variety of backgrounds. Fill your open entry-level technical positions today with graduates from our proprietary pool of net-new talent.

Dive straight into ready-to-hire talent ⟶

GA GENERAL ASSEMBLY

READY TO BUILD A FUTURE-FORWARD ENGINEERING TEAM?

Get in touch →