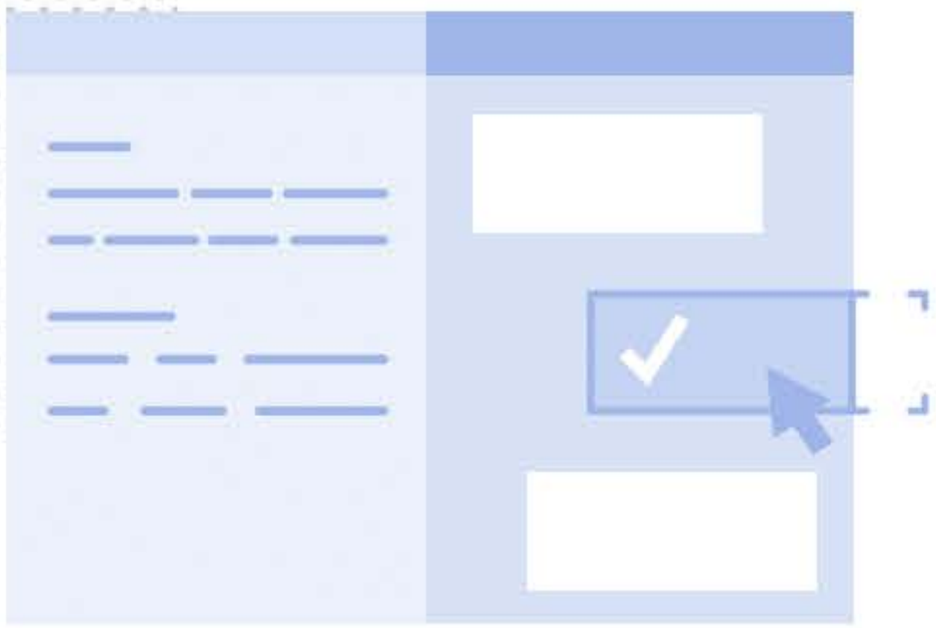
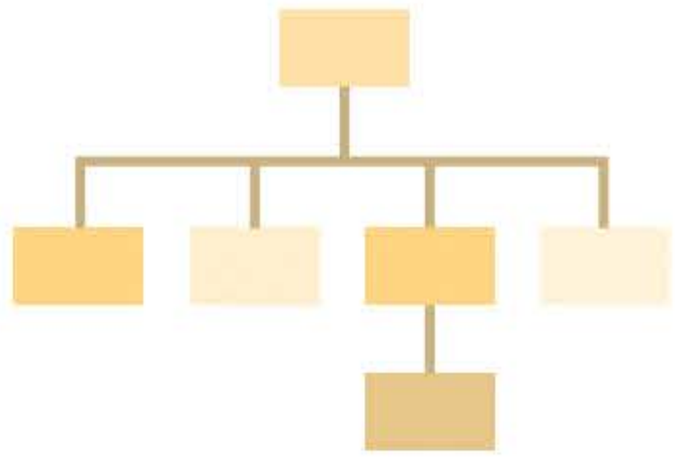
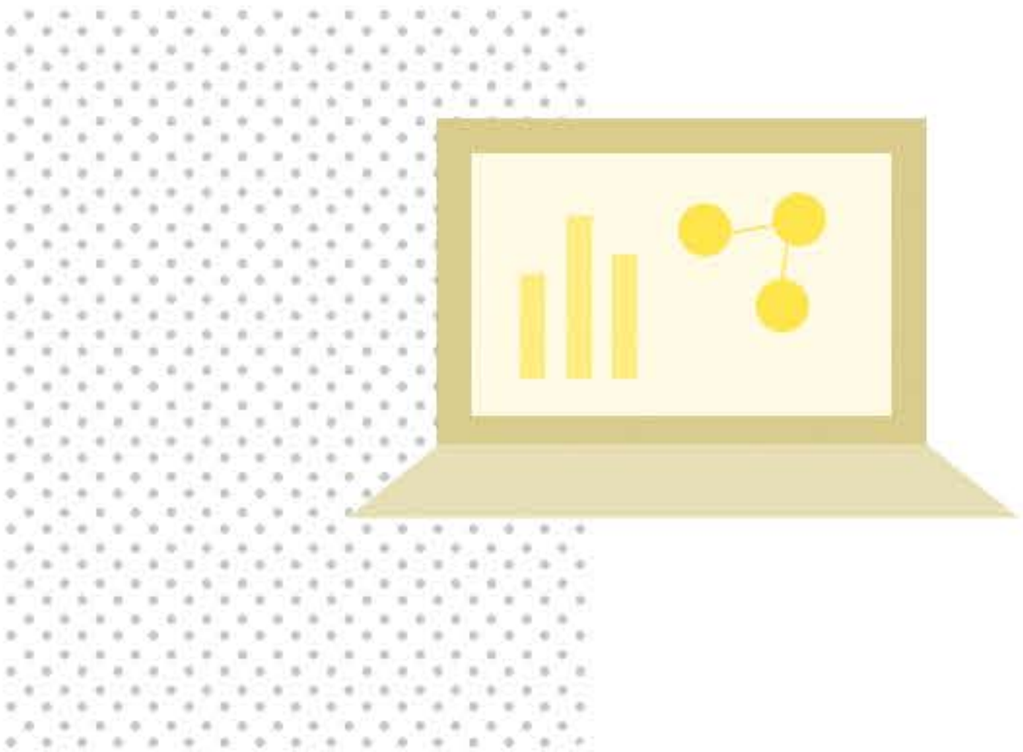
GENERAL ASSEMBLY

Landing Work You Love

A TECH CAREER GUIDE







Anyone — at any stage in their life — can have a tech career.

INTRODUCTION

You — yes, *you*.

You're ready for a job change but not a change for change's sake. You want something sustainable, challenging, future-forward, and digitally driven — like a tech career. There's always been an on-the-pulse energy surrounding tech, especially in a post-pandemic world.

FOLLOW THE MONEY

As the demand for job-ready tech talent increases, so do the perks. In-office happy hours, casual dress codes, stock options, IPOs, 401K matching, and more contribute to the many reasons why people actively seek tech careers.

We get it: while all of this is exciting, tech can be intimidating, especially for those who can't access education. But it's not the invite-only club you may think — and it no longer requires a four-year computer science degree. Programs like our 12-week Immersive courses and social impact initiatives, like See Her Excel, are just some of the ways tech is creating more inclusive pathways to a new career.

ANYONE'S GAME

Although tech has plenty of open jobs, skills gaps cause a disconnect between talent pools and employers. Job seekers looking to break into the industry may need to pick new technical skills to fill these job opportunities (aka reskilling).

Ultimately, there are no prerequisites required to start a new career. Everyone begins somewhere — and to give you a headstart, we're breaking down six key tech disciplines to ease the decision-making process.

In this guide, you will:

- Get an overview of six always-in-demand tech disciplines: Coding, Product Management, Data Analytics, Data Science, UX Design, and Digital Marketing.
- Discover five starting steps to plan a smooth career transition.
- Gain the information to confidently navigate a fulfilling tech career.

CHAPTER 1

Tech Is the Whole Economy

Tech is an important sector of the economy, and it is easy to understand why. It influences and defines our everyday.

The technology industry is no longer separated from the rest of the economy; it's the *whole* economy. Tried-and-true brands — like GE, American Express, and L'Oreal — are vying for skilled tech workers to do everything from managing digital marketing campaigns to parsing massive data sets. In the post-pandemic world of remote work, tech is one of the most resilient sectors of the economy, and with it, job security.

And one thing is certain: tech is here to stay.

WHY IT MATTERS TO *YOU*

You have the advantage as a tech job-seeker. Your career options are not limited to startups or tech hubs or tech brands — our entire world is fueled by technology. Talented professionals can find work in nearly every business sector, and most tech roles today can be conducted from wherever there's WiFi. With the right attitude, the appropriate skills, and a job-ready portfolio, opportunities in tech are exponential.

Too good to be true? Not at all. In the next chapter, we will cover the roles that are most in-demand and the skills you need to get the offer.

Required skills and a professional portfolio are prerequisites for any first interview. The good news: at GA, you can learn the essentials in less than six months.

149 million:
The number of global tech jobs Microsoft estimates will be created by 2025[1].

[1] Microsoft, Re-envisioning the workforce: Skilling today to thrive tomorrow

CHAPTER 2

The Six Core Disciplines of the Tech Industry

It's impossible to cover every role within the tech industry — and that's a good thing. Tech never stops growing. We've streamlined this guide with key, always-in-demand, roles and skills that any tech organization will need.

These disciplines are invaluable, command a higher-than-average starting pay, require highly transferable skill sets, and offer upward mobility. Most importantly, they are accessible — even with little to no digital background, you can be job-ready within 12 weeks of training in a GA Immersive course.

They are:

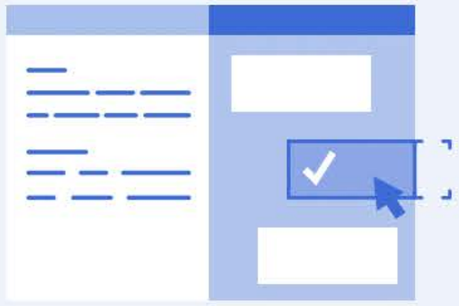
- Coding
- Product Management
- Data Analytics
- Data Science
- User Experience Design
- Digital Marketing

It starts with...

I can bring this to life.

The Gist. Behind every digital product is a developer who brought it to life. Using logic and math, they work on the nuts and bolts that make those big ideas and innovative features work. It may seem intimidating, but don't let learning a programming language like Python deter you. Development is rooted in structured, bite-sized progress and reiteration. Even the most complex products are built one keystroke at a time.

Anything on a screen requires some degree of coding, making it one of today's most applicable skills. While responsibilities and competencies are -end dependent — front-end or back-end development — many of them build off of each other, setting the scene for a dynamic, high-growth career.



If you have an aptitude for using logic to create, then you're built to build with code.

1. CODING (SOFTWARE ENGINEERING & WEB DEVELOPMENT)

The Responsibilities

- Use fluency in the languages, frameworks, and libraries to create compelling experiences that satisfy business and user needs.
- Build intuitive products that leverage third-party databases and APIs.
- Communicate with developers, engineers, and other stakeholders with a shared technical vocabulary.
- Leverage HTML and CSS to code responsive apps and power dynamic websites, incorporating animations, dropdowns, and more.
- Build web forms that collect user data for storage in a database.

The Right Fit

- You are analytically driven but leave room for creativity.
- You have a love for efficiency and lean, detail-driven problem-solving.
- You can adapt to different settings and audiences.
- You are always asking *why*?

Bottom Line: If you have an aptitude for using logic to create, then you're built to build with code.

The Career Track

There are three kinds of web developers: front-end, back-end, and full-stack. Front-end developers code what the end-user sees and interacts with, like the design and functionality of a web page. Back-end developers build the technology that enables the user-facing side to function. Full-stack developers possess a hybrid collection of both skills, allowing them to build websites and apps from start to finish. Generally, the more skills a role requires, the higher the pay — developers earn **$67k–$136K USD**, but it varies by role, product, and experience. Some common developer roles our Software Engineering Immersive students land include:

- Software Engineer
- Front-End Web Developer
- Full-Stack Software Engineer
- Back-End Developer

The Hard Skills

- Programming Languages: JavaScript, SQL, & Python
- Programming Frameworks
- HTML & CSS
- API Integration
- Agile Methodologies

The Tools

- GitHub
- Git
- JIRA
- Trello
- Chrome DevTools
- Bootstrap

The Difference:
Web Development vs. Software Engineering

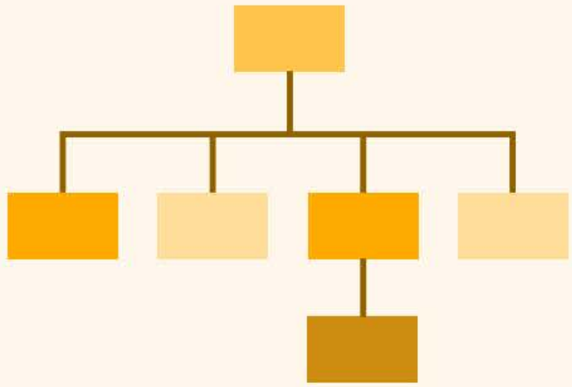
Software engineering is a holistic approach to coding, focusing on how to build the software that web applications and websites run on. Web development is discipline-specific, looking more at building the front-end (client-side) or back-end (server-side) of a web app.

It starts with...

I need to see the big picture.

The Gist. Product management is where business, technology, and user needs meet. Become a mini-CEO as you lead a product from development to market (and back again) in the role of a product manager (PM). You'll manage team workflows, strategize from user research, collaborate cross-functionally, etc. — but your objective is clear: deliver a product that meets consumer demand and provides an optimal ROI.

PMs are involved in nearly every industry, but the specific responsibilities shift based on the need and resources.



If you're a big-picture thinker who can balance long-term vision with short-term problem solving, then you've got what it takes to become a product manager.

Product Management

Product Management

The Responsibilities

- Identify opportunities and distill insights into an implementable strategy.
- Define clear product requirements.
- Build and maintain a product roadmap.
- Refine product functionality based on feedback.
- Track product performance in the market.

The Right Fit

- You are a fair, empathetic listener.
- You have natural leadership qualities.
- You can see how all the parts work together — and not get frazzled.
- You are someone who *just makes it happen*.

Bottom Line: If you're a big-picture thinker who can balance long-term vision with short-term problem solving, then you've got what it takes to become a product manager.

The Career Track

Product managers are critical to the success of a product — and are paid as such. PMs typically earn **over $100K USD**, but like other roles, this can vary. Successful product managers can transition into executive leadership positions, but beginner-level jobs include:

- Associate Product Manager
- Jr. Product Manager
- Product Specialist
- Product Analyst
- Product Strategist

The Hard Skills

- User Research
- Business Strategy
- Competitive Analysis
- Agile Methodologies
- Data Analysis

The Tools

- Google Analytics
- Mixpanel
- SQL

The Difference:
Product Management vs. Project Management

While there's overlap between both, the main difference comes with scope. Product managers own the product being built, while project managers own the building of it. If product managers deal with the what and why, then project managers deal with the *how* and *when*.

Data Analytics

It starts with...

There has to be a pattern here.

The Gist. Data is like fossil fuels: it's worth a lot more when you know how to process it — and once you lock down the fundamentals, you'll strike oil. Data analysts are the force that organizes heaps of raw information into measurable trends and valuable insights. From sourcing and cleaning vast datasets to building stakeholder-friendly dashboards, data analysts use tools like SQL and Tableau to tell compelling stories and inform sound business decisions.

Where there's an industry, there's a data analyst. The insights they uncover can help almost any team optimize their strategy. To set our students up for success, we equip them with industry-standard skills and experiences.

Have an eye for detail and a curiosity for how abstract ideas relate? Then, it sounds like you should saddle up for a career in data wrangling.

Data Analytics

The Responsibilities

- Plan, execute, and analyze A/B experiments.
- Collect and organize data from various sources.
- Distill data into powerful visualizations.
- Build effective dashboards that communicate insights to stakeholders.
- Create data models to predict an outcome.

The Right Fit

- You are a detail-oriented, analytical thinker.
- You find joy in a challenging puzzle.
- You have a gift for grounding big ideas with logic.
- You can craft a complete story from separate pieces of information.

Bottom Line: Have an eye for detail and a curiosity for how abstract ideas relate? Then, it sounds like you should saddle up for a career in data wrangling.

The Career Track

Data is universal. This in-demand skill set can be applied to UX, marketing, and more. Within the data sector, successful analysts typically begin earning **at least $65K USD** annually, but senior-level roles can easily earn in the **six-figure range**. Common entry-level positions include:

- Data Engineer
- Data Analyst
- Data Visualization Specialist
- Technical Product Manager
- Business Intelligence Analyst

The Hard Skills

- A/B Testing
- Data Cleaning & Preparation Data Visualization
- Data Warehousing
- Nontechnical Communication

The Tools

- Excel
- BI Tools: Business Objects & Tableau
- Hadoop
- SQL
- Pandas
- Programming Languages: Python or JavaScript

The Difference:
Data Analytics vs. Data Science

A square is a rectangle, but a rectangle is not always a square — that's sort of how the relationship between a data analyst and data scientist works. Analysts help businesses answer specific questions with data (i.e., *How has this update impacted mobile website traffic?*), while data scientists help businesses ask questions that will lead to innovation and predictive models.

Data science

It starts with...

I bet there's a hidden opportunity somewhere.

The Gist. Extracting knowledge from data? That's science — data science, to be precise. Data scientists identify the most impactful questions (i.e., *Will autoplay increase user session length? Does increased user session length lead to increased subscriber retention?*) and organize data to reveal actionable solutions. With help from machine learning and predictive modeling, data scientists look at things that ***are*** to determine what **could be**.

Data science projects, like customer segmentation and recommendation engines, are becoming staples for any successful digital strategy, regardless of industry. But all data science work relies on a similar set of competencies and frameworks.

If you're a visionary thinker who focuses on the source of an issue rather than the symptoms, you have real potential as a data scientist.

Data Science

The Responsibilities

- Identify relevant business questions.
- Collect data from various sources.
- Translate results into solutions.
- Communicate findings in an accessible way.

The Right Fit

- You are a critical thinker who pushes daring ideas.
- You have an insatiable curiosity.
- You can connect the dots before others.
- You are excited by the unknown.

Bottom Line: If you're a visionary thinker who focuses on the source of an issue rather than the symptoms, you have real potential as a data scientist.

The Career Track

There's a reason why the data scientist role has neared the top of LinkedIn's Emerging Jobs Report for three consecutive years: **demand**. Prospective employers are hungry for data scientists who can apply machine learning to business problems — and they'll pay a premium for top talent. At a senior level, data scientists can earn **over $134K USD**, but since these skills align so closely with decision-making roles, there's a platform to grow. Some common roles our Data Science Immersive students land include:

- Data Science Associate
- Data & AI Specialist
- Data Engineer
- Data Analyst
- Data Science Consultant

The Hard Skills

- Linear Algebra
- Variable Statistics
- Actionable Analytics
- Statistics Techniques
- Quantitative & Qualitative Methods
- Systems Thinking

The Tools

- SAS
- Perl
- Programming Languages: R, Python, & JavaScript
- Excel
- Hadoop

The Difference:

Data Analytics vs. Data Science

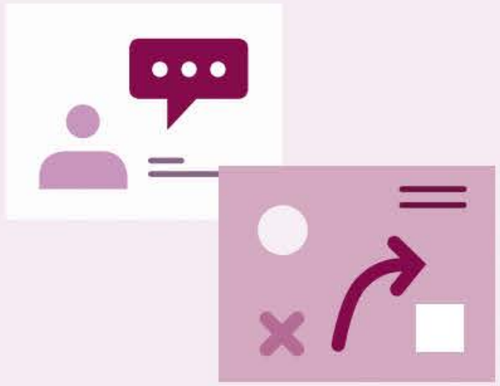
If data analysts are focused on the present, then data scientists are looking at the future. For context, data analysts often become data scientists after obtaining more technical experience in machine learning and programming.

It starts with...

I think I can make this work better.

The Gist. Scrolling through an app? That's user experience (UX). The layout of a museum? That's UX, too. UX focuses on the interaction between a user and a product — both digital and physical. UX designers put themselves in the users' shoes: *What do they want, and how can I help them get it?* With a mix of research, information architecture, and graphic design, the answers will result in delightful experiences that meet user needs. Part-detective, part-artist, the insights you glean from user interviews, wireframes, and prototypes will inform the design choices and experiences you make.

UX design spans private and public sectors — basically any industry that requires a website — with responsibilities varying position-to-position. Lucky for our students, they leave our courses prepared and fully equipped to handle any UX job.



If you're a natural problem solver with an eye for detail — and another for perspective — then you already have the makings of a successful UX designer.

UX Design

UX Design

The Responsibilities

- Design user interfaces and products that are simple to navigate.
- Communicate design ideas effectively to stakeholders and teams.
- Identify points of friction in a user flow and ensure intuitive user experiences.
- Conduct quantitative and qualitative user research.

The Right Fit

- You are — above all else — a problem solver.
- You naturally put yourself in their shoes.
- You have a gift for understanding what makes people tick.
- You can differentiate between want and *need*.

Bottom Line: If you're a natural problem solver with an eye for detail — and another for perspective — then you already have the makings of a successful UX designer.

The Career Track

Creativity is hard to automate, so the long-term prospects for a career in design are bright, and there's plenty of room for career mobility. While UX designers can expect to earn on average **$103K USD** a year, salaries vary depending on the work and individual experience. Here are some common beginner roles our User Experience Design Immersive grads land:

- UX Designer
- UX Writer
- UX Researcher
- Product Designer
- Brand Strategist

The Hard Skills

- User Research
- Prototyping
- Wireframing
- Information Architecture
- Graphic Design

The Tools

- Figma
- InVision
- Adobe Photoshop
- Sketch
- UserTesting

The Difference:
UX vs. UI

User experience and user interface designers are both empathy-driven jobs, but UI focuses more on the visual aesthetics. They look at how visual touchpoints like color, animation, and imagery shape the experience. UX designers are a bit more practical, looking at how structural design choices improve effectiveness and efficiency.

It starts with...

I know what would get their attention.

The Gist. A great product can still fail if the right customer doesn't understand its value — that's where marketing comes in. Successful digital marketing is more than flashy discounts and banner ads; it encompasses the customer journey down the sales funnel. Whether they're expanding ad reach or improving click-through rates, the digital marketer's goal is to acquire, engage, convert, and retain customers across multiple channels, like email, paid search, and more.

Digital marketing spares no sector. Every industry relies on the tools and strategies digital marketers bring to the table, but their responsibilities will vary depending on the marketing channels they oversee. For instance, a social media manager and an SEO specialist have different metrics and use unique tactics to achieve them. While channels have different objectives, they rely on similar core principles and provide plenty of opportunities for cross-channel initiatives.

If you're a three-steps-ahead thinker with the ability to meet others where they are, then you've got the frame of a successful digital marketer.

Digital Marketing

The Responsibilities

- Develop, optimize, and manage a campaign strategy based on performance.
- Define objective-based KPIs.
- Leverage various storytelling mediums.
- Collaborate with cross-functional teams.
- Analyze campaign performance data and share insights.

The Right Fit

- You are passionate about digital storytelling.
- You have an eye for compelling narratives.
- You can manage complex, fast-moving projects.
- You have a talent for communication.
- You are a collaborative team player.

Bottom Line: If you're a three-steps-ahead thinker with the ability to meet others where they are, then you've got the frame of a successful digital marketer.

The Career Track

There are many paths for a digital marketer, especially with the constant innovation in marketing technology. While many become experts in their respective channels, others may take a broader approach down the management and leadership path. The pay depends on the scope of the role and the channel it oversees, but a junior professional can expect to earn **$66K–103K USD** on average. Entry-level job titles for this field include:

- Digital Marketing Associate
- Product Marketing Specialist
- Social Media Associate
- Growth Marketer
- Web Marketer

The Hard Skills

- Social Media Marketing
- Paid Search
- Email Marketing
- Search Engine Optimization (SEO)
- Content Strategy

The Tools

- Google Analytics
- Google Adwords
- Facebook Ads
- Instagram Insights
- Sprout Social

Digital Marketing

CHAPTER 2

Still Undecided?

Take our quick career quiz, and we'll recommend career paths to explore.

CHAPTER 3

Your Game Plan

As one of the first technical bootcamps, we know the key elements to getting a job in tech: gaining in-demand skills, building a portfolio, and preparing for the job search. We've made it our mission to make you job-ready in 12 weeks through our comprehensive Immersive programs.

Explore Your Career Journey:

- Step 1: Find Your Study Path
- Step 2: Finance Your Future
- Step 3: Brand Yourself
- Step 4: Develop & Grow Your Network
- Step 5: Network Because You Never Know

STEP 1

Find Your Study Path

When it comes to education, you've got options. Whether pursuing a traditional university degree or an accelerated career through bootcamps, each path has its own opportunities and obstacles.

	Self-Study	Getting an Advanced Degree at a University	Enrolling at a Technical Training Provider
PROS	No supervision. Learn at your own pace. Most cost-effective option.	Grants a traditional degree. Alumni network access. Potential academic prestige.	Designed for adult learning. Hands-on training with working practitioners. Less costly than traditional programs. Laser-focused, career-centric curriculums.
TO CONSIDER	Time-consuming. No in-person support. Potential work-life imbalance.	Requires years of full-time learning. Least cost-effective option. Potential student debt. Delayed ROI (lost income while getting the degree).	Not an optimal investment for those undecided on career or education goals.
BEST FOR	Independent, highly motivated, and disciplined learners. Fans of flexibility. Those who need to retain a "day job" schedule.	Those who hold academic prestige in high regard. Fans of tradition. Career beginners.	Students of any age or professional experience. Fans of efficiency. Those with targeted goals want to become job-ready in the least amount of time.

There's a reason why GA grad are hired at a higher rate than other technical bootcamps. Find out why in our most recent **Outcomes Report.**

STEP 2

Finance Your Future

Ultimately, every person's financial circumstances are different, but with careful planning, a tech education does not have to compromise your lifestyle or resources.

	Pay Now	Pay Later	Pay With Assistance
PROS	When you tackle the cost of your tuition up front, you end up saving big in the long run by avoiding additional fees.	Not everyone can pay upfront, and that's okay! Over half of our students use one of our Pay Later options — from 0% interest loans to paying after you land a job.	We work with private and public sector organizations to offer discounts, tuition reimbursement, and scholarships.
TO CONSIDER	Pay Upfront Installment Plan	Income Share Agreement Education Loans	G.I. Bill® See Her Excel Opportunity Fund
BEST FOR	Avoiding fees. Paying the overall lowest cost.	Focusing fully on studies. Using earnings from a new career to pay for tuition.	Reducing upfront costs. Removing systemic barriers to education.

Have a question about our financing options?
Send us a message, and we'll get back to you ASAP!

STEP 3

Brand Yourself

This practical-and-proven checklist outlines how you can stand out from the masses with distinct, polished, and professional personal branding. Many of these steps are what our career coaches advise our graduates:

- **Focus on the role you really want.** Develop a detailed job search curriculum and work to develop the skills and tools you need to compete in the job market.
- **Develop your personal brand.** Ensure that your online presence captures your skills and competencies, as well as personality and priorities. Double-check that your resume and portfolio are compelling and error-free.
- **Update your LinkedIn profile.** Employers and hiring managers use this resource daily to discover and recruit new talent. Make sure your profile contains search terms relevant to your new career and a working link to your portfolio, if applicable.
- **Revamp your resume.** Make sure it is up-to-date, legible, and error-free. Protip: Look at what others are doing or refer to templates to develop your own style on free sites.
- **Network, network, network.** Who you know — and don't yet know — can lead to work you love. Whether you're an extrovert, introvert — or something in between — there are many networking styles and strategies to fit your specific needs.
- **Persistence is key.** Continue to search for and apply to jobs while also continuing to refine technical skills. A successful tech career requires personal initiative, ambition, and plenty of tune-ups!

Note: If you enroll in one of our Immersive courses, a GA career coach will work 1:1 with you on your job search strategy until you've achieved an outcome.

Changing careers requires strength, tenacity, and other qualities that reflect a great work ethic — employers recognize this. Hiring managers (like those who frequently recruit General Assembly alums) value the time and effort put into making a career switch. Here's why:

HIRING MANAGER SNAPSHOTS

I have found career-changers to be awesome. I could easily hire a recent grad or experienced tech worker, but career-changers bring a perspective to the table that nobody else has — years of time developing soft skills and learning how to advance. When I hire career-changers out of General Assembly, I actively look for individuals who could rise up within a few years.

ANSHEY BHATTIA,
Founder at Verbal Plus Visual &
Employer of General Assembly Grads

When I hire anyone, I look at more than their resumes, education, and career histories. I also look at hobbies and side projects to understand how candidates think and what they enjoy doing. Many people discover their passions later in life and instead of sticking to their initial career trajectories, decide to switch gears. It's a sign that the candidate really loves what he or she is doing and is motivated to learn.

JEANNIE YANG, Chief Product & Design Officer at Smule & Employer of General Assembly Grads

STEP 4

Develop & Grow Your Network

A career change is a life change. Your first step is to make sure you explore what your future career aspirations are really like in real life. What better way to do that than to talk with other people who have gone through similar experiences?

This is where a "network" comes into play. In a professional network, everyone is there for one reason: to advance their career. So, how do you start? Create a network with a few people you know and a lot of people you don't — go to both well-known and niche job sites such as indeed.com, linkedin.com, monster.com, angellist, c0ffe3, and underdog.io, as well as your social media platforms.

"IRL isn't my thing."

We live in a remote-optional world now. Attending a virtual networking event can be far less intimidating vs. an in-person event. Video conferencing software, like Zoom or Microsoft Teams, affords video on/off options, the mute button, and other features. These digital boundaries allow the remote networking experience to be more comfortable for the more introverted.

"I'd rather get out and meet people — the right people."

So, you're an extrovert. There's likely an event related to the field you want to work in going on soon — finding one is as easy as searching "marketing/coding/etc. networking event near me" in Google. Attend a handful, and seek out people who are working in a role that you aspire to do.

We also encourage you to attend a local GA event. Our events are free, open to everyone, and are a great place to meet fellow career changers and tech leaders. Even if they're not hiring, they will likely know who is or what is trending. Check out GA's site calendar to see what's happening in your area.

STEP 5

Network Because You *Never* Know

It's no secret that hiring can happen behind the scenes. Some job openings might be posted externally, and some companies prefer to hire employee referrals only. You never know when or where the right opportunity will pop up, so having a strong professional network could lead to opportunities that traditional application processes cannot.

Strategizing With a Career Coach

Career coaches can validate if the roles you are interested in are a good fit — especially in niche industries that require technical skill sets.

GA's career coaches are here to help you on the 12-week Immersive learning journey. Learn how we pair new tech skills with career training.

Personalized career coaching is a key component of GA's Career Services program — a built-in feature to our Immersive courses. Yvonne Dodd, a GA career coach, breaks it down.

Yvonne Dodd

(She/Her)

Outcomes Manager & Career Coach
Atlanta, GA

Inside GA's Career Services Program

Our team understands that it's a huge leap to learn a new skill or pursue a new career. That's why we're committed to providing the support necessary to help with that transition.

Students who work with our Career Services and Outcomes program can expect to be empowered with the right tools and resources to confidently navigate the post-course job search.

You can learn a lot from doing your own research, but you'll learn the most by connecting with other humans. **Some protips**:

1. **Stay informed.** Keep up on industry developments, common tools and skills, and the latest trends.
2. **Learn the culture.** Research which companies are making an impact with both their products and internal culture.
3. **Get connected.** Find groups and meetups related to your industry, and build relationships with GA alumni that have similar interests.

It's okay to have doubts while you change careers, but always remember: you're on the road to a new career, and that's a big deal. GA students come from different backgrounds, but like you, they're all passionate about growth, learning, and starting a fulfilling career.

Ready to build a tech career you love? Great. We're ready for you.

Browse Courses & Workshops | Contact Us

General Assembly transforms careers and companies through leading-edge programs in coding, product management, data analytics, data science, UX design, and digital marketing. Our team has worked with hundreds of companies worldwide — including more than 68 of the Fortune 500 — to upskill, reskill, and revolutionize their teams. With 50,000+ corporate employees trained and 80,000+ alumni from our full- and part-time programs, our solutions provide immediate and proven impact.