



Careers in Digital Guide

A guide to your future career in digital



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About the Code4Europe Project

With 2030 rapidly approaching and the digital decade target of 20 million ICT professionals in Europe still far out of reach, now is the time to bring together all of Europe's digital skills stakeholders from Youth Education, Civil Society, Digital Industry and Government to implement innovative new approaches to the digital upskilling of young people.

Code4Europe envisions to create a hugely successful, sustainable, and scalable digital education and upskilling initiative that will empower all young Europeans to embrace digital technologies and pursue a highly rewarding career in Digital. We intend to reach this goal by reimagining and growing EU Code Week, giving it a mandate to

- · Drive real change in digital education throughout Europe
- \cdot a focus on vastly increasing the number of young people who choose digital careers, and

 \cdot An emphasis on engaging the entire digital skills ecosystem in a common mission to close the digital skills gap in Europe by tackling the problem at its source.

Code4Europe will massively scale EU Code Week aiming to impact 25 million young people over the period of 2 years (01/07/2024 – 30/06/2026). We will maintain and build on the grassroots nature of the initiative, embrace and empower the existing Code Week community, and stay fully aligned with its core values. To implement our vision, we have created a Consortium of 45 committed and passionate organisations representing all the Digital Education & Skills Stakeholder groups needed to grow EU Code Week to unprecedented levels. Led by Junior Achievement Europe, Code4Europe will unite European Education and Digital Skills Communities within one integrated EU Code Week programme.

Introduction

This guide is designed for students aged 13–18-year-olds in Upper Secondary Education or College to give an overview of the top careers in digital and how to get there.

Browse our top 20 jobs, enjoy the digital skills quizzes, review what certifications you would like to undertake, watch our role model videos and heed our advice which includes doing your own research and staying curious about our new digital world.

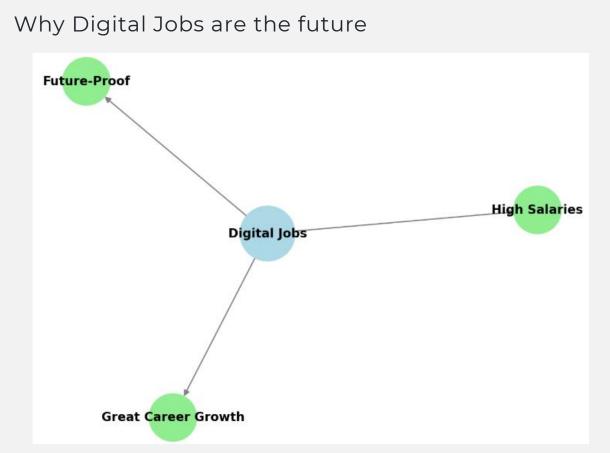
The digital era has revolutionised the way we work, communicate, and solve problems, creating a wealth of opportunities in careers that did not exist a few decades ago.

Digital careers offer diverse opportunities across fields such as software development, cybersecurity, digital marketing, data science, etc. This guide invites participants to discover where their skills, interests, and ambitions fit within the evolving tech landscape.

So, get inspired!

One last thing: please record reading this guide as an activity for CodeWeek at <u>https://codeweek.eu/add</u> so that we can capture the impact and continue to inspire young people with great digital careers. Thank you.





- **Future-Proof** Digital roles are in high demand and the tech industry is growing fast with the growth in digital technologies
 - **Transferable skills** Skills like problem solving, analytical thinking, creativity, curiosity and interest in technology can be used across a variety of career paths
- **High salaries** You can expect a higher-than-average salary for working in tech or digital fields. Here's an overview of average annual salaries for various digital positions in Europe:

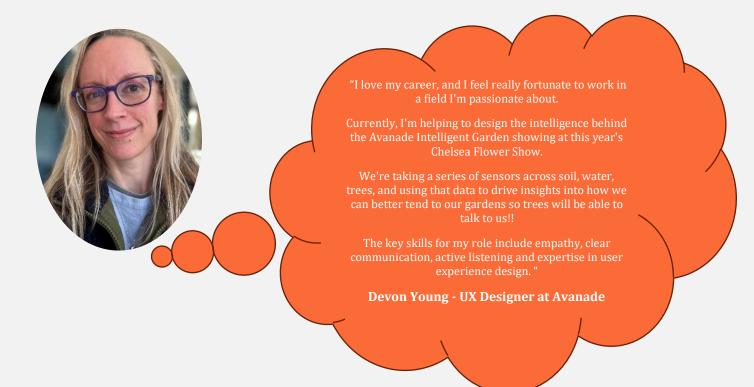
| Digital Role | Average Annual Salary (EUR) |
|---------------------------------------|-----------------------------|
| AI/Machine Learning Engineer | •€70,000-€100,000 |
| Blockchain Developer | €60,000-€90,000 |
| Cybersecurity Analyst | €55,000-€85,000 |
| Cloud Computing Specialist | €65,000-€95,000 |
| Data Scientist | €60,000-€90,000 |
| Full-Stack Developer | €50,000-€80,000 |
| UX/UI Designer | €45,000-€75,000 |
| IT Support Specialist | €35,000-€55,000 |
| Digital Marketing Professional | €40,000-€70,000 |

Note: These figures are approximate averages and can vary based on location, experience, and company size. Sourced from ChatGPT.



- Great career growth
 - **Flexibility** There is a variety of roles that you can work in. These roles are often required worldwide allowing you to travel or work from home
 - Inclusivity Digital jobs are for everyone no matter who you are you will find inspiring role models like you and workplaces where you will belong in digital. There are jobs for all strengths the creative, the "people person", the leader, the analytical thinker etc.
 - **Impact** The jobs of the future will involve building and using the technology of the future and allow you to be part of crafting what is to come...

Role models





"On a daily basis, I'm involved in planning AI projects, coding, guiding an amazing team, and coming up with new solutions.

The best part is watching our AI systems come to life and make real impact in the industry.

Now in my field, having skills such as deep learning knowledge and AI solutions, architecture design is crucial. I've gained this through continuous learning and hands on projects, turning complex challenges into effective solutions."

> Vasileios Linardos - Head of AI at ARCHEIOTHIKI SA

> > " I personally got into technology after wanting to play with robots as a young girl.

That's one of the first memories I can remember of playing with some technology that I found really fun and that spiked some interest in me.

I work in my current role with line marking robots that mark lines on sports fields.

Katrine Moller -Robot Software Engineer at Tiny Mobile Robots



"I love my job because it allows me to drive digital transformation, make a real impact on businesses and communities we operate with.

While this is my dream job, if I had to choose another, it would always be something that combines technology and social impact.

A typical day involves strategic planning, meeting with clients, and collaborating and coaching my teams.

The best part of my day is seeing the positive outcome of our work and the difference we make for our clients."

Paula Panarra - General Manager at Avanade UK & Ireland



Top 20 jobs in digital

We present to you the current top 20 jobs in digital as gathered from research, charity partner insights and feedback from young people. Bear in mind that this is constantly changing and updating as the digital world jobs move very quickly!



Here is **a list of comparison factors** for the top 20 jobs of the future. These results were aggregated by AI through NotebookLM. Please check <u>Annex</u> for more details on the methodology and sources used.

| Profession | Market Demand | Salary Potential | Growth Potential | Work- Life Balance | Impact and Influence |
|----------------------------------|------------------|---------------------|---------------------|--------------------------|----------------------------|
| AI/Machine Learning Engineers | 10 | 10 | 10 | 7 | 9 |
| Blockchain | 8 | 9 | 8 | 7 | 8 |
| Cloud Computing Specialist | 9 | 9 | 9 | 7 | 8 |
| Content Creator | 7 | 7 | 8 | 6 | 7 |
| Cybersecurity | 9 | 9 | 9 | 5 | 9 |
| Data Analyst | 9 | 8 | 8 | 7 | 7 |
| Data Engineering | 9 | 9 | 9 | 7 | 8 |
| Data Scientist | 10 | 10 | 9 | 7 | 9 |
| DevOps Engineer | 9 | 9 | 9 | 6 | 8 |
| Digital Business Analysis | 8 | 8 | 8 | 7 | 7 |
| Digital Marketing | 8 | 8 | 8 | 7 | 7 |



| Full-Stack Development | 9 | 9 | 9 | 6 | 8 |
|---------------------------|----|---|---|---|---|
| ΙοΤ | 8 | 8 | 9 | 7 | 8 |
| IT Support Specialist | 7 | 6 | 6 | 5 | 6 |
| Low-Code Development | 7 | 7 | 8 | 7 | 6 |
| Mobile Development | 9 | 8 | 8 | 6 | 8 |
| Robotics Engineering | 8 | 9 | 9 | 6 | 8 |
| Software Eng/Developer | 10 | 9 | 9 | 6 | 8 |
| UX/UI Designer | 9 | 8 | 8 | 7 | 8 |
| Web Designer | 8 | 7 | 7 | 7 | 7 |

The ranking provided above is just an example, it could change based on people decisions – it is **you** that will decide what to prioritise - whether work-life balance, salary or growth potential for example.

Explanation of Ratings:

These 5 factors have been chosen as the most important elements of a career according to our research through NotebookLM and experience from consortium partners. Here are more details:

- **Market Demand:** The Market Demand map, identify and reflects the needs for skilled professionals currently missing in the job market.
- **Salary Potential:** This indicates the earning potential for these roles, considering factors like professional experience and geographical location and company range.
- **Growth Potential:** This assesses the future prospects and opportunities for professional advancement within the working field.
- **Impact and Influence:** This evaluates the potential to make a significant contribution and have a broad effect through the work.
- **Work-Life Balance:** This is a more subjective measure, but it generally reflects the typical work hours, stress levels, and flexibility associated with the professional position.

A special note on Work-Life Balance: Work-life balance can be a challenge in many tech roles, especially those with high demand and rapid growth. Roles like Cybersecurity, IT Support, DevOps and Full-Stack Development often involve on-call work, tight deadlines, and the need to stay updated with the latest technologies. But there are many positives in careers in digital including great remote work options and the opportunity to travel, as well as network with a variety of people and to undertake a wide variety of projects in this fast-moving world.



Description of the top 20 professions

Here below we would like to further provide you with the descriptions, qualifications, and educational pathways of the top 20 professions identified above.

AI/ML (Artificial Intelligence/Machine Learning) Engineers

- **Description:** Develop and implement algorithms that allow computers to learn from data, make decisions, and perform tasks that typically require human intelligence.
- **Qualifications:** Strong programming skills (Python, R), knowledge of machine learning algorithms, deep learning frameworks (TensorFlow, PyTorch), data modeling, and statistical analysis.
- Educational Pathway: Bachelors or Masters in Computer Science, Data Science, or a related field with a focus on AI/ML. Online courses, boot camps, and certifications are also valuable.

Blockchain

- **Description:** Develop and implement blockchain technologies for various applications, including cryptocurrencies, supply chain management, and secure data storage.
- **Qualifications:** Understanding of cryptography, distributed systems, data structures, smart contracts, and blockchain platforms (Ethereum, Hyperledger). Programming skills in languages like C++, Java, or Solidity.
- **Educational Pathway:** Bachelor's or master's in computer science, Information Systems, or a related field. Specialized courses and certifications in blockchain development are becoming increasingly common.

Cloud Computing Specialist

- **Description:** Design, implement, and manage cloud-based infrastructure and services for organizations.
- **Qualifications:** Knowledge of cloud platforms (AWS, Azure, GCP), virtualization, networking, security, and cloud-native technologies (containers, Kubernetes). Relevant certifications (AWS Certified Solutions Architect, Azure Administrator) are highly valued.
- **Educational Pathway:** Bachelor's in Computer Science, Information Technology, or a related field. Cloud-specific certifications and hands-on experience are crucial.

Content Creator

- **Description:** Create engaging content (text, images, videos) for various online platforms to attract and retain an audience.
- **Qualifications:** Strong writing, editing, and visual communication skills. Knowledge of SEO, social media marketing, and content management systems (CMS). Creativity and adaptability are key.
- **Educational Pathway:** While a degree in Marketing, Journalism, or Communications can be helpful, many content creators are self-taught. Building a strong portfolio is essential.



Cybersecurity

- **Description:** Protect computer systems and networks from unauthorized access, cyberattacks, and data breaches. You will assist customers by listening to their requirements and issues, troubleshooting and helping design security solutions. You will also deliver workshops and trainings.
- **Qualifications:** Knowledge of network security, cryptography, ethical hacking, security auditing, and incident response. Relevant certifications (CISSP, CompTIA Security+) are highly valued.
- Educational Pathway: Bachelor's or Master's in Cybersecurity, Computer Science, or a related field like Software Engineering. Certifications and hands-on experience are essential.



Data Analyst

- **Description:** Collect, process, and analyse data to extract insights and support business decision-making.
- **Qualifications:** Proficiency in data analysis tools (SQL, Excel, R, Python), data visualisation, and statistical analysis. Strong communication and problem-solving skills.
- Educational Pathway: Bachelors in Statistics, Mathematics, Economics, Computer Science, or a related field. Online courses and certifications in data analysis are also valuable.

Data Engineering

- **Description:** Build and maintain the infrastructure for collecting, storing, and processing large datasets.
- **Qualifications:** Strong programming skills (Python, Java, Scala), knowledge of databases (SQL, NoSQL), data warehousing, ETL processes, and big data technologies (Hadoop, Spark).
- **Educational Pathway:** Bachelor's or Master's in computer science, Data Science, or a related field with a focus on data engineering.



Data Scientist

- **Description:** Use advanced statistical and machine learning techniques to analyse complex data, build predictive models, and solve business problems.
- **Qualifications:** Strong programming skills (Python, R), knowledge of statistical modeling, machine learning algorithms, data mining, and big data technologies.
- **Educational Pathway:** Master's or Ph.D. in Data Science, Statistics, Computer Science, or a related field.

DevOps Engineer

- **Description:** Bridge the gap between software development and IT operations, automating the software release process and ensuring smooth deployment and operation of applications.
- **Qualifications:** Knowledge of Linux/Unix systems, scripting (Python, Bash), configuration management tools (Ansible, Chef, Puppet), CI/CD pipelines, and cloud platforms.
- **Educational Pathway:** Bachelor's in computer science, Information Technology, or a related field. Hands-on experience and relevant certifications are highly valued.

Digital Business Analysis

- **Description:** Analyse business processes, identify areas for improvement, and recommend digital solutions to enhance efficiency and effectiveness.
- **Qualifications:** Strong analytical and problem-solving skills, knowledge of business process modeling, requirements elicitation, and digital technologies.
- **Educational Pathway:** Bachelor's in Business Administration, Information Systems, or a related field. Certifications in business analysis are also valuable.

Digital Marketing

- **Description:** Develop and implement online marketing strategies to promote products or services and reach target audiences.
- **Qualifications:** Knowledge of SEO, social media marketing, email marketing, content marketing, and digital advertising. Strong analytical and communication skills.
- **Educational Pathway:** Bachelor's in Marketing, Communications, or a related field. Online courses and certifications in digital marketing are also valuable.

Full-Stack Development

- **Description:** Develop both the front-end (user interface) and back-end (server-side logic) of web applications.
- **Qualifications:** Proficiency in front-end technologies (HTML, CSS, JavaScript), backend languages (Python, Java, Node.js), databases, and web frameworks.
- **Educational Pathway:** Bachelor's in Computer Science or a related field. Boot camps and online courses are also popular pathways.

IoT (Internet of Things)

• **Description:** How many of you wear a smartwatch or a fitness tracker? How do you think you can see your OWN data (heart rate, blood pressure, distance run, gps location, ...) on your mobile phone, on your pc, even on your tv? How about lights in your home that you can control with your mobile? Do you know that certain traffic



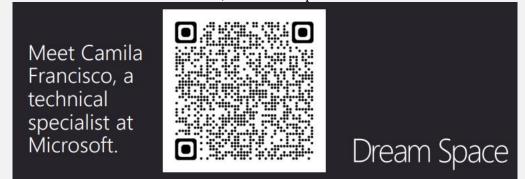
lights adjust to the traffic? This is IOT. Now imagine yourself, entering a world of everyday objects and TRANSFORM them with sensors, Wi-Fi, cellular comms and microcontrollers, to their "smarter versions". Nice, eh? Design, develop, and implement Internet of Things (IoT) solutions that connect physical devices to the internet.

- **Qualifications:** Knowledge of embedded systems, sensor networks, communication protocols, cloud platforms, and data analytics.
- **Educational Pathway:** Bachelor's or Master's in Computer Engineering, Electrical Engineering, or a related field.

IT Support Specialist

- **Description:** These are the go-to experts for all your tech troubles, making your digital life smoother. They provide technical support to end-users, troubleshoot hardware and software issues, and maintain computer systems. They also ensure online security. A typical day might involve checking emails or internal messaging systems, helping people with tech issues, setting up gadgets/tech and learning new tech skills. T
- **Qualifications:** Knowledge of computer hardware, software, networking, and operating systems. Strong problem-solving and communication skills. Experience in Internships a benefit.
- Educational Pathway: Associate's degree in information technology or a related field like Computer Science, Software or Electronic engineering. Certifications like CompTIA A+ are often required.

"IT Support is like having tech superheroes on standby. They solve computer issues, set up new devices, and ensure online security." Camila Francisco, Technical specialist at Microsoft



Low-Code Development

- **Description:** Develop applications using visual interfaces and pre-built components, minimizing the need for traditional coding.
- **Qualifications:** Familiarity with low-code platforms (e.g., Mendix, OutSystems, Salesforce Lightning), basic programming concepts, and understanding of business processes.
- **Educational Pathway:** While a computer science background can be helpful, many low-code developers come from business or other non-technical backgrounds. Platform-specific training and certifications are essential.

Mobile Development

• **Description:** Develop mobile applications for various platforms (iOS, Android).



- **Qualifications:** Proficiency in programming languages like Swift (iOS) or Java/Kotlin (Android), knowledge of mobile UI/UX design principles, and familiarity with mobile development tools and frameworks.
- **Educational Pathway:** Bachelor's in Computer Science or a related field. Boot camps and online courses are also popular pathways.

Robotics Engineering

- **Description:** Design, build, and program robots for various applications in industries like manufacturing, healthcare, and exploration.
- **Qualifications:** Knowledge of mechanical engineering, electrical engineering, computer science, programming, and control systems.
- **Educational Pathway:** Bachelor's or Master's in Robotics Engineering, Mechanical Engineering, Electrical Engineering, or a related field.

Software Engineer/Developer

- **Description:** A person who writes code in programming languages that computers can interpret and execute to perform specific tasks. . Design, develop, test, and maintain software applications for various platforms and purposes.
- **Fun fact:** Software developers can often be referred to as software engineers or programmers and they can work on the development of websites, videogames, mobile apps, computer programmes and so much more!
- **Qualifications:** Strong programming skills in one or more languages (Java, Python, C++, JavaScript), knowledge of data structures, algorithms, software design principles, and software development methodologies.
- Educational Pathway: Bachelor's in computer science, software engineering, maths, data science or data analytics or a related field some institutions offer degrees in game design and development. Boot camps in programming and software development. You might have hobbies in open source projects or game engines. and <u>online courses</u> can also provide a pathway into the field.



Meet Olga Ralovets, one of Microsoft's Software Engineers

Dream Space

UX/UI Designer (User Experience Design/User Interface design)

• **Description:** UX design stands for "user experience design," while UI stands for "user interface design. They both relate to how products are created (think: websites, apps, and software). Design user interfaces and user experiences for websites and applications, focusing on usability, accessibility, and visual appeal.

Fun fact: Every day can look different but can include sketching ideas, interviewing people and collecting feedback.



- **Qualifications:** Knowledge of user-centered design principles, interaction design, information architecture, and visual design. Proficiency in design tools like Figma or Adobe XD. Coding is not a must but could be helpful.
- **Educational Pathway:** Bachelor's in design, Human-Computer Interaction, or a related field. Many come from art and design backgrounds but others from business, social sciences and psychology. Boot camps and online courses are also popular pathways check out product design and UX courses.



Web Designer

- **Description:** Design and create visual layout and user interface of websites.
- **Qualifications:** Proficiency in HTML, CSS, JavaScript, and graphic design tools. Understanding of web design principles, user experience, and SEO.
- **Educational Pathway:** Associate's or Bachelor's degree in Web Design, Graphic Design, or a related field. Online courses and boot camps are also valuable.



• Suggested Courses in Digital

Here are some suggested courses for starting your career in digital from top providers CISCO, Microsoft and LinkedIn.

Why Pursue Certifications in Digital?

- Career Readiness: Stand out with recognised expertise in technology.
- **Industry Recognition**: Globally respected Microsoft certifications open doors and provide access to better job positions.
- **Skill Development**: Build critical skills in AI, cloud computing, security, and more.

Microsoft Courses for career starters

With 91% of hiring managers using certifications as a criterion when evaluating candidates. It is clear that employers value certifications. Prove your technical know-how and stand out from the crowd with a Microsoft Certification. Eligible students can take certification exams at a discounted academic price.

There are several fundamental Microsoft Exams you could take advantage of!

1) AI-900: Microsoft Azure AI Fundamentals.

Learning Path: <u>Microsoft Certified: Azure AI Fundamentals - Certifications | Microsoft Learn</u>

This certification demonstrates your knowledge of AI concepts and Azure services, including machine learning, computer vision, and natural language processing. It's designed for both technical and non-technical backgrounds.

2) AZ-900: Microsoft Azure Fundamentals

Learning Path: <u>Microsoft Certified: Azure Fundamentals - Certifications | Microsoft Learn</u>

This certification covers foundational knowledge of cloud concepts, core Azure services, and Azure management and governance features. It's ideal for those starting their journey in Azure.

3) PL-900: Microsoft Power Platforms Fundamentals

Learning Path: <u>PL-900: Microsoft Power Platform Fundamentals - Training | Microsoft Learn</u>

This certification highlights the business value and capabilities of Microsoft Power Platform, including Power Apps, Power Automate, and Power BI. It's perfect for those looking to create business solutions with low-code/no-code tools.

4) SC-900: Microsoft Security & Compliance

Learning Path: <u>Microsoft Certified: Security, Compliance, and Identity Fundamentals -</u> <u>Certifications | Microsoft Learn</u>



This certification provides foundational knowledge on security, compliance, and identity concepts, along with related Microsoft solutions. It's suitable for business stakeholders, IT professionals, and students.

Read about more certifications at <u>Student Certifications - Student Hub | Microsoft Learn</u>

Measure Up offers realistic exam simulations to help you prepare for IT certification exams. Their practice tests provide detailed feedback and real-time score analysis, allowing you to identify and address knowledge gaps. Additionally, MeasureUp integrates with virtual lab environments for hands-on practice in a controlled setting.

Watch this short video for more information about MeasureUp practice exams:

- <u>Get the most out from MeasureUp!</u>
- You can practice as many times as you want, and MeasureUp will retain your practice history. Click here to visit MeasureUp: <u>account.measureup.com</u>

Other Microsoft courses

• Generative AI Learning Pathways: <u>Career Essentials in Generative AI by Microsoft and LinkedIn</u> These great videos are a must to watch if you are interested in a career in this area. Language availability: Available in 7 languages

Free Online Courses from CISCO Networking Academy

NetAcad's introductory classes are the perfect means to combine theoretical knowledge from the courses with practical, hands-on projects to reinforce learning through application. These classes are meant for anyone above the age of 13, and all last under 10 hours, so they are perfect for those who are completely new to the topic or need a refresher. Find below a brief explanation of each class and click on the links to enroll as a student! As an educator, you can share the links below to your own students to let them independently work through the course materials.

- Introduction to IoT: Offers foundational knowledge about the Internet of Things, preparing students for the interconnected world of technology. (>> click here!)
- Intro to Cybersecurity: Teaches cybersecurity basics to protect the students' personal digital life and gain insights into the biggest security challenges companies, governments, and educational institutions face today. (>> click here!)
- Intro to Data Science: Teaches data science, data analytics, and data engineering to understand how machine learning is shaping the future of business, healthcare, education, and more. (>> *click here!*)
- Introduction to Modern AI: Helps students learn key AI concepts and get hands-on practice with AI-enabled apps. (>> *click here!*)
- Digital Awareness: Equips students with fundamental knowledge and practical digital skills that can be applied at home, school or work. (>> *click here!*)
- Computer Hardware Basics: Explores the fundamentals of computers and mobile devices, the components that comprise them, how they work, and basic troubleshooting tools and techniques. (>> click here!)



Click here for a full orientation course on all the available Cisco Networking Academy courses and how you can make the most of these materials!

Other recomended courses

- How to Launch Your Tech Career | Michael Page
- This is a guide for careers in digital, that suggests specific types of courses to follow
- <u>Skills to Succeed Academy</u> <u>Courses | Skills to Succeed Academy</u>
- This course offers free, interactive online training to help you build the skills and confidence needed to choose the right career, find a job, and succeed in the workplace

Courses to advance specific skills

Here below a list of other relevant courses that could help you advance your specific skills in digital

- <u>Google Digital Garage</u>
- <u>Coursera</u> Digital Skills: Digital Marketing by Accenture (Free with Audit)
- <u>Harvard CS50</u>: Introduction to Computer Science (Web Development)
- <u>The Odin Project</u> (Full-Stack Web Development)
- <u>fast.ai</u> Practical Deep Learning for Coders (Data analytics and AI)
- <u>AWS Cloud Practitioner Essentials</u> (Cybersecurity & Cloud Computing)

• Take a Digital Career Quiz!

Here is our guide to the best career quizzes to help you on your way!

Short Tech skills quiz

Discover your dream digital job role with this quick and free quiz! Has questions based on daily life to set you on the correct career path and information about every career.

https://www.techskills.org/careers/quiz/

Tech Career Quiz – which job is right for me?

You do not know which is the right tech job for you ? Take this nice, simple, and quick quiz, asks some great questions and it then recommends you digital jobs based on your answers.

https://careerfoundry.com/en/blog/career-change/tech-career-quiz/



BCS Chartered Institute for IT Quiz

Nice quiz that leads to top Tech Jobs and suggests courses to take to be more qualified for the specific role:

In Demand Tech Jobs | BCS

Test your digital skills with Europass!

A great assessment tool that uses questions to check your skills' level. Europass <u>https://europa.eu/europass/digitalskills/screen/home</u>

UCAS Find your ideal career

Leads to any job not only in digital. Careers Quiz | UCAS



• Useful Resources

Career Guide from Microsoft Dreamspace

Embark on an adventure with Microsoft Ireland's Dream Space, exploring careers in the technology sector and gaining insights into opportunities in Science, Technology, Engineering, Art/Design, and Mathematics (STEAM).

Check out the resources link and <u>YouTube</u>

<u>ttps://m.youtube.com/watch?v=YU3CrwOqdew&list=PLk8CXm24CyQFMJLKyMnWn700e</u> <u>W7FC3vyd&index=1&pp=iAQB</u> for exclusive videos with Microsoft Ireland's Dream Space Champions, a programme that connects Microsoft professionals directly with students. Learn about their responsibilities, daily routines, and the steps to pursue each role.

Join us in unlocking exciting STEAM career paths at Microsoft, which are also relevant to many major tech companies worldwide.

European Centre for Women in Technology (ECWT)

- Looking for role models and a Community for girls and women in the European semiconductor industry?
- Check out and join the Role Model Database of 100+ women in microelectronics
- <u>ECoVEM</u> European Centre of Vocational Excellence in Microelectronics ERASMUS+ Knowledge Alliances Project (2020-2024): <u>https://ecovem.ecwt.eu/role-models/</u>

Digital Careers

This is a digital career guide, although from Youth Employment UK it has many different career paths relevant globally and information about every path. <u>Digital Careers - Youth Employment UK</u>

Future of Jobs reports

- This report by the World Economic Forum highlights the fastest-growing and declining jobs, driven by technological advancements and other macro trends: <u>https://www.weforum.org/stories/2025/01/future-of-jobs-report-2025-the-fastest-growing-and-declining-jobs/</u>
- 2. This page discusses the impact of new technologies, demographic changes, and globalization on the labour market, and the policies needed to address these changes: <u>https://www.oecd.org/en/topics/policy-issues/future-of-work.html</u>
- 3. This platform provides resources for those looking to start or advance their careers in digital fields, including information on digital trends, self-assessment tools, and job opportunities across Europe:

https://digital-skills-jobs.europa.eu/en/opportunities/careers

4. This section offers detailed job profiles in the computing, technology, and digital sectors, including required qualifications, salary ranges, and career progression opportunities:

https://nationalcareers.service.gov.uk/job-categories/computing-technology-anddigital



5. The BLS is the principal fact-finding agency for the U.S. government in the field of labor economics and statistics, providing data on employment, wages, and other labor market conditions: https://www.bls.gov/

Salary Data

It's important to check Glassdoor because it offers valuable salary insights for various professions, based on real user-reported data. This can help you make informed decisions about your career and salary expectations. https://www.glassdoor.com

Demand and Job Market Trends

The Bureau of Labor Statistics (BLS) provides data on job growth, demand, and future Outlook for various professions in the U.S. https://www.bls.gov https://www.bls.gov/ooh/ LinkedIn digital representation of the global economy https://economicgraph.linkedin.com/

Indeed Job Trends: Analyzes job postings and demand for specific roles. https://www.indeed.com

Growth Potential

World Economic Forum (WEF): Publishes reports on future job trends and skills in demand (e.g., "The Future of Jobs Report"). Website: https://www.weforum.org

Gartner: Provides insights into technology trends and their impact on careers. Website: https://www.gartner.com

McKinsey & Company: Offers reports on digital transformation and its impact on jobs. Website: https://www.mckinsey.com

Work-Life Balance

Glassdoor Reviews: Includes employee reviews about work-life balance for specific roles and companies.

Website: https://www.glassdoor.com

Comparably: Provides insights into company culture and work-life balance. Website: https://www.comparably.com

Skill Accessibility

Coursera: Offers data on the popularity and difficulty of learning specific skills. Website: https://www.coursera.org

Udemy: Provides insights into the most in-demand courses and skills. Website: https://www.udemy.com



Stack Overflow Developer Survey: Highlights the skills and tools developers are learning. Website: <u>https://insights.stackoverflow.com/survey</u>



• Words of advice

Here are some final words of advice as you undertake this journey.

Do independent research

1. Do your own research. Always!

2. Pick high quality and independent sources – not an easy task!

3. Never rely on any source articles with the type of title "A 10-minute guide to choosing your career"

4. Always second guess what you read. Even this toolkit!

5. Always remember to investigate the source of the advice and the advisors themselves. Does the advice come from people who have actually been there and done that? Talk to friends and family on your job quest for their views.

The six degrees of separation

The concept of six degrees of separation is the idea that we, all people on earth, are six or fewer social connections away from each other. As such, a friend of a friend can introduce you to the role of a job you are considering and have a direct chat of "a day in the life of a data scientist in Amazon". Try to exploit this opportunity through your network – you will be surprised by the results.

Disclaimer

Information on careers in digital is constantly changing - the information in this document is from a variety of sources in March 2025.

Fun fact: The information here was fresh as a daisy at publication time, but in the time, you read a paragraph, the digital world likely shifted a bit. (Or a byte)! By tomorrow, 4% of this document will be "vintage".

Be committed to mastering the art of rapid learning and keeping pace with this dynamic industry. After all, in digital sciences, adaptability is not just a skill – it is the secret sauce!

Let us embrace the thrill of learning at the speed of now.

Remember

Your journey is a continuous one.

Enjoy it.

• Annex

Citations and methodology of this report

These results were aggregated by AI through NotebookLM. This report was created from various sources, training manuals, internal documents and from a wide range of companies (exchange listed, private, small, large) and authored by experienced professors, HR, Talent Acquisition professionals in with experience in the fields of Digital Science and Engineering.



All data presented here are validated by the authors with fact verification. The "Rank by your factor" table is an original idea created by City Lab, Greece.



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