



# Careers in Digital Guide

A guide to your future career in digital

Last updated February 2026.

## • Document Control Information

Project	EU Code Week
<b>Project number</b>	101158834
<b>Document Title</b>	Careers in Digital Guide
<b>Section Number</b>	WP4
<b>Deliverable Number</b>	T4.1.1 Careers in Digital Guide and T4.3.1 Define Career Pathways for the most popular 20 careers in digital
<b>Lead Beneficiary</b>	Avanade
<b>Project Coordinator:</b>	JA Europe
<b>Dissemination Level</b>	Public – fully open
<b>Authors</b>	Sophia Drakaki and Dimitris Blougouros, City Lab Kirsty Christie, Avanade
<b>Reviewers</b>	Sabrina Di Ruggiero, Schuman Associates
<b>Description</b>	Careers in Digital Guide – top 20 careers in digital and pathways to get there
<b>Status</b>	<b>Final for Submission</b>
<b>Delivery Date</b>	12.03.2025
<b>Due date</b>	31.03.2025

## Document history

	Date	Modified by	Comments
1	18.02.2025	Sophia Drakaki, City Lab,	First draft
2	11.03.2025	WP4 feedback Sophia Drakaki, Dimitris Blougouros, City Lab and Maria Karampela Unisystems	Revised draft
3	12.03.2025	Kirsty Christie, Avanade	Draft submitted
4	20.03.2025	Sabrina Di Ruggiero, Schuman Associates	Quality Assurance review
5.	28.03.2025	Kirsty Christie, Avanade	2nd Submission
6	31.03.2025	Sabrina Di Ruggiero, Schuman Associates	Final Quality Assurance Revision

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## • The Code4Europe Consortium

The Code4Europe project is implemented by the following Consortium of Partners:

	School	Acronym	Country
1	Junior Achievement Europe	JA Europe	Belgium
2	European Alliance to Save Energy ASBL	EUASE	Belgium
3	CityLab IKE	CityLab	Greece
4	Dzhuniar Achiyvmant Balgariya	JA Bulgaria	Bulgaria
5	Latvian Information and Communication Technology Association	Likta	Latvia
6	DIGITALEUROPE AISBL	DIGITALEUROPE	Belgium
7	European Parents Association	EPA	Belgium
8	Fundacion Junior Achievement Espana	JA Spain	Spain
9	NGO Junior Achievement Ukraine	JA Ukraine	Ukraine
10	Fundacja Koalicji na rzecz Polskich Innowacji	KPI	Poland
11	eSkills Malta Foundation	eSkills Malta	Malta
12	Matrix Internet	Matrix	Ireland
13	University Politehnica of Bucharest	UPB	Romania
14	Avanade Belgium SPRL	Avanade	Belgium
15	Euractiv Media Network	Euractiv	Belgium
16	Microsoft Ireland Research Ltd	Microsoft	Ireland
17	WIDE ANDCO	WIDE ANDCO	Luxembourg
18	All Digital Aisbl	All Digital	Belgium
19	CY.R.I.C Cyprus Research and Innovation Center Ltd	CY.R.I.C	Cyprus
20	European Center for Women and Technology Forening	ECTW	Norway
21	Profil Klett D.o.o.	Profil Klett	Croatia
22	UNI SYSTEMS Systimata Pliroforikis Monoprosopi Anonymi Emporiki Etairia	UNISYSTEMS	Greece
23	ATHINA – Erevnitiko Kentro Kainotomias stis Technologies tis Pliroforias, ton Epikoinonion kai tis Gnosis	Athena RC	Greece
24	Schuman Associates SCRL	Schuman	Belgium
25	Charlie Miller Group	Charlie Miller	Denmark

<b>26</b>	Officina Futuro Fondazione W Group	Officina Futuro	Italy
<b>27</b>	Fondazione LINKS - Leading Innovation and Knowledge for Society	Fondazione LINKS	Italy
<b>28</b>	INTEL Technology Poland Spolka z Ograniczona Odpowiedzialnoscia	INTEL	Poland
<b>29</b>	INDIRE - Istituto Nazione di Documentazione per l'Innovazione e la Ricerca Educativa	INDIRE	Italy
<b>30</b>	Genc Basari Egitim Vakfi	JA Türkiye	Türkiye
<b>31</b>	Science on Stage Deutschland e.V.	Science on Stage	Germany
<b>32</b>	I Osnovna Skola Cakovec	O.S. ČAKOVEC	Croatia
<b>33</b>	National College of Ireland	NCI	Ireland
<b>34</b>	Narodna Koalicia pre Digitalne Zrucnosti a Povolania Slovenskej Republiky	Digitalna Koalicia	Slovak Republic
<b>35</b>	Cisco Systems Belgium	Cisco	Belgium
<b>36</b>	Bulgarian Ministry of Innovation and Growth	MIG	Bulgaria
<b>37</b>	Accenture SA	Accenture	Belgium
<b>38</b>	CoderDojo Belgium	CoderDojo	Belgium
<b>39</b>	Digitale Wolven	Digitale Wolven	Belgium
<b>40</b>	Terawe Technologies Limited	Terawe	Ireland
<b>41</b>	Simplon.Co	Simplon	France

<b>No</b>	<b>Partner</b>	<b>Acronym</b>	<b>Country</b>
<b>1</b>	Global Alliance for Youth	GA4Y	Switzerland
<b>2</b>	HP Inc Belgium	HP Inc Belgium	Belgium
<b>3</b>	SAP SE	SAP SE	Germany
<b>4</b>	Junior Achievement of Albania	JA Albania	Albania

## • 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
- a focus on vastly increasing the number of young people who choose digital careers, and
- 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.

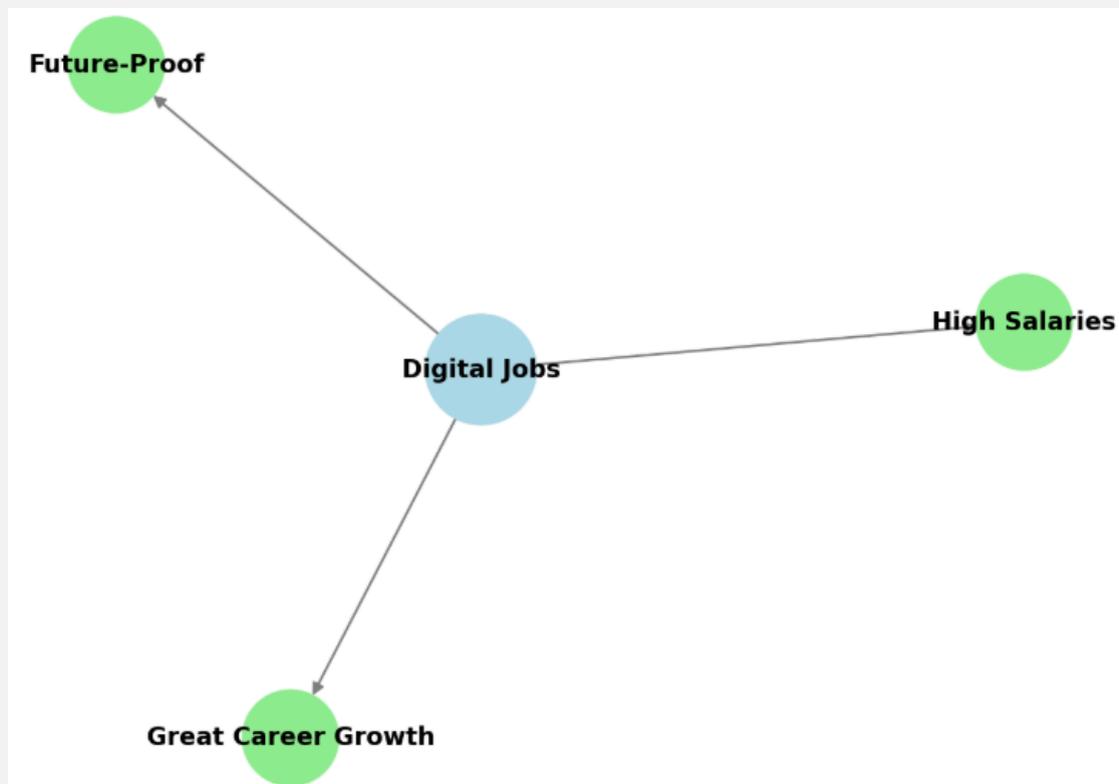
The digital era has revolutionised the way we work, communicate, and solve problems, creating a wealth of opportunities in careers that did not exist a few decades ago.

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 <https://codeweek.eu/add> so that we can capture the impact and continue to inspire young people with great digital careers. Thank you.

## Why Digital Jobs are the future



- **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)
<b>AI/Machine Learning Engineer</b>	€70,000–€100,000
<b>Blockchain Developer</b>	€60,000–€90,000
<b>Cybersecurity Analyst</b>	€55,000–€85,000
<b>Cloud Computing Specialist</b>	€65,000–€95,000
<b>Data Scientist</b>	€60,000–€90,000
<b>Full-Stack Developer</b>	€50,000–€80,000
<b>UX/UI Designer</b>	€45,000–€75,000
<b>IT Support Specialist</b>	€35,000–€55,000
<b>Digital Marketing Professional</b>	€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



"I love my career, and I feel really fortunate to work in a field I'm passionate about.

Currently, I'm helping to design the intelligence behind the Avanade Intelligent Garden showing at this year's Chelsea Flower Show.

We're taking a series of sensors across soil, water, trees, and using that data to drive insights into how we can better tend to our gardens so trees will be able to talk to us!!

The key skills for my role include empathy, clear communication, active listening and expertise in user experience design."

**Devon Young - UX Designer at Avanade**

"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!



<b>Mobile Development</b>	9	8	8	6	8
<b>Robotics Engineering</b>	8	9	9	6	8
<b>Software Eng/Developer</b>	10	9	9	6	8
<b>UX/UI Designer</b>	9	8	8	7	8
<b>Web Designer</b>	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), back-end 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 [online courses](#) can also provide a pathway into the field.



## 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.

## Spotlight A: The Ethics of AI

### The Ethics of AI: Keeping Tech Human

As Artificial Intelligence becomes part of our daily lives—from suggesting what to watch on Netflix to helping doctors diagnose diseases—we face a big question: **How do we make sure AI is fair, safe, and trustworthy?**

Just because we *can* build it, doesn't always mean we *should*. This is where the world of **AI Ethics** comes in. It's not just about coding; it's about philosophy, law, and sociology. It is about ensuring that the robots of the future respect human values. And we shall ensure that!

**Fun fact:** Did you know that AI can have "hallucinations"? Sometimes, generative AI models confidently make up facts that aren't true!

**Serious fact:** That is why we need humans in the loop - to keep things real.

### New Job Spotlight: AI Ethicist / Responsible AI Specialist

- **Description:** You are the "conscience" of the tech world. Your job is to test AI systems for bias (e.g., making sure a facial recognition system recognizes all skin tones equally) and ensure transparency. You ask the tough questions: "Is this algorithm fair?" "Is this data private?"
- **Qualifications:** A unique mix of technical understanding (how models work) and humanities (Sociology, Philosophy, Law). Critical thinking and debate skills are your superpowers.
- **Educational Pathway:** A degree in Computer Science paired with Ethics/Philosophy, or a Law degree with a focus on Digital Rights.

## Spotlight B: Green Tech & Sustainability

### Green Tech: Coding for the Planet

When we think of "pollution," we usually think of cars and factories. But did you know that the internet, data centers, and our devices consume a massive amount of electricity?

Gen Z is the sustainability generation, and **Green Tech** is where your passion for the planet meets your digital skills. This isn't just about planting trees; it's about "Green Coding"—writing software and building mechatronics and robotics that are efficient and use less energy—and using tech to solve climate change (like smart grids that optimize solar power).

**Fun fact:** If the Internet were a country, it would be the 6th largest polluter in the world in terms of energy consumption! Every email, stream, and AI-bot search uses energy.

**Serious fact:** We have to act – now!

### New Job Spotlight: Sustainable IT Specialist

- **Description:** Help organizations reduce their "digital carbon footprint." You might design energy-efficient data centers, create software and electromechanical systems that run on less battery power, or use data analytics to track and reduce waste in supply chains.
- **Qualifications:** Knowledge of Environmental Science, Data Analytics, and Cloud Efficiency. You need to understand how energy grids work and how software consumes hardware resources.
- **Educational Pathway:** Environmental Engineering, Computer Science, or a dual degree in Sustainability and Business/IT.
- **Impact:** This is a career where you literally save the world, one byte at a time. 😊

**"There is no Planet B":** Digital jobs in this sector are growing faster than ever as companies rush to meet "Net Zero" targets. Whether you are an engineer or a data analyst, you can turn your digital career into climate action.

## | Spotlight C: Digital Health & BioTech

### **Digital Health: Code That Cures**

Medicine isn't just about stethoscopes and surgery anymore; it is about data, sensors, and algorithms. **Digital Health** is one of the fastest-growing fields in the world. It involves using technology to treat patients, prevent diseases, and even "edit" biology.

From smartwatches that detect heart attacks before they happen, to AI that can spot diseases faster than a human doctor, this is where your digital skills can literally save lives.

**Fun Fact:** Scientists are now using "Digital Twins" of human hearts—virtual 3D replicas—to test surgeries and drugs on a computer before ever touching the real patient!

### **New Job Spotlight: Health Informatics Specialist**

- **Description:** You are the bridge between doctors and data. You design systems that track outbreaks of diseases, manage patient data securely, or build apps that help people manage diabetes or mental health.
- **Qualifications:** A mix of Biology/Health interest and strong Data Analysis capabilities. You need to understand medical terms *and* database code (SQL, Python).
- **Educational Pathway:** Degree in Health Informatics, Biomedical Engineering, or Biology with a minor in Data Science.
- **Impact:** You aren't just coding; you are helping people live longer, healthier lives.

## | Spotlight D: Space Tech & New Space Economy

**(Suggested placement: Near "IoT" or "Telecommunications")**

## Space Tech: Coding the Cosmos

Space exploration used to be just for governments and astronauts. Now, it is a massive digital industry. We are launching thousands of small satellites to monitor climate change, provide internet to remote areas, and track global supply chains.

You don't need to be an astronaut to work in space(!) You can be the person on Earth writing the code that drives the rover on Mars or analyzes the images coming back from the edge of the solar system.

**Fun Fact:** The helicopter that flew on Mars (Ingenuity) ran on a processor similar to the one in your smartphone, and it was controlled by code written by people right here on Earth!

## New Job Spotlight: Geospatial Data Analyst

- **Description:** Use data from satellites (Earth Observation) to solve problems on the ground. You might analyze satellite images to help farmers grow better crops, track deforestation in the Amazon, or help disaster relief teams find safe routes after an earthquake.
- **Qualifications:** Knowledge of GIS (Geographic Information Systems), Remote Sensing, and Python. A love for maps and geography is a huge plus.
- **Educational Pathway:** Geography, Environmental Science, or Computer Science with a specialization in Geospatial Technology.

## | • 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: [Microsoft Certified: Azure AI Fundamentals - Certifications | Microsoft Learn](#)

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: [Microsoft Certified: Azure Fundamentals - Certifications | Microsoft Learn](#)

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: [PL-900: Microsoft Power Platform Fundamentals - Training | Microsoft Learn](#)

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: [Microsoft Certified: Security, Compliance, and Identity Fundamentals - Certifications | Microsoft Learn](#)

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 [Student Certifications - Student Hub | Microsoft Learn](#)

**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:

- [Get the most out from MeasureUp!](#)
- You can practice as many times as you want, and MeasureUp will retain your practice history. Click here to visit MeasureUp: [account.measureup.com](https://account.measureup.com)

## Other Microsoft courses

- Generative AI Learning Pathways: [Career Essentials in Generative AI by Microsoft and LinkedIn](#) 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 recommended 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
- [Skills to Succeed Academy Courses | Skills to Succeed Academy](#)
  - 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

- [Google Digital Garage](#)
- [Coursera](#) – Digital Skills: Digital Marketing by Accenture (Free with Audit)
- [Harvard CS50](#): Introduction to Computer Science (Web Development)
- [The Odin Project](#) (Full-Stack Web Development)
- [fast.ai](#) – Practical Deep Learning for Coders (Data analytics and AI)
- [AWS Cloud Practitioner Essentials](#) (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 <https://europa.eu/europass/digitalskills/screen/home>

### 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 [YouTube](#)

<https://m.youtube.com/watch?v=YU3CrwOgdew&list=PLk8CXm24CyQFMJLKyMnWn700eW7FC3vyd&index=1&pp=iAQB> 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
- [ECoVEM](#) - European Centre of Vocational Excellence in Microelectronics ERASMUS+ Knowledge Alliances Project (2020-2024): <https://ecovem.ecwt.eu/role-models/>

### 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.

[Digital Careers - Youth Employment UK](#)

### Future of Jobs reports

1. This report by the World Economic Forum highlights the fastest-growing and declining jobs, driven by technological advancements and other macro trends:  
<https://www.weforum.org/stories/2025/01/future-of-jobs-report-2025-the-fastest-growing-and-declining-jobs/>
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:  
<https://www.oecd.org/en/topics/policy-issues/future-of-work.html>
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-and-digital>

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: <https://insights.stackoverflow.com/survey>

## • 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.

## Quality Assurance Review of key Deliverable

<b>Section name</b>	WP4 Careers in Digital
<b>Deliverable Name</b>	D4.1 Dream Jobs in Digital Campaign Plan - T4.1.1 Careers in Digital Guide
<b>Partner(s) involvement</b>	<b>Avanade, City Lab</b>
<b>Submission Deadline</b> (As per Annual Work Plan)	<b>28.03.2025</b>

Rate	1	2	3	4	5
Quality Parameter	very low/strongly disagree	low/disagree	moderate/neither nor	high/agree	very high/strongly agree
1.RELEVANCE: The Deliverable contributes to accomplishing the Code4Europe defined project objectives and suits the intended target audience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Additional comments: none.					
2. COMPLETENESS: The documents correspond to the WP/Task objectives and the Code4Europe agreed methodology. The documents comply with the directions provided/agreed with the WP Leader and Task Leaders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Additional comments: none.					
3. CONTENT VALIDITY AND INFORMATION ACCURACY: The information provided is accurate and verifiable. The document makes evident use of reliable sources of information, avoids biased, personal views and justifies conclusions with relevant information/data/evidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional comments: none					
4. TIMELINESS: The Deliverable was made available allowing for the 2-week review time as foreseen by the Code4Europe Deliverable Review Process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional comments: none.					
5. LANGUAGE & GRAMMAR QUALITY: The report shows proficient level English without grammatical errors, slang (informal language), typos and incomprehensive sentences.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional comments: none.					
6. READABILITY : Deliverables should be concise and well-focused, as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional comment: none					
7. ADHERENCE TO CODE4EUROPE FORMAT: The document is presented in line with the prescribed specifications and format in terms of file format and file layout/design (e.g. cover page, logos, headings, tables, font, font size, line spacing, page margins)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional comments: none.					
8. VISUAL QUALITY: The document is aesthetically appealing and shows a concise layout, contributing to attracting and retaining readers' interest and increasing engagement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Additional comments: The document presents nice testimonials and quote that could inspire young boys and girls to work in the digital and tech sector.					
9. OVERALL QUALITY: How would you rate the deliverable's overall quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional comments: none					
10. YOUR FUTHER IDEAS: Do you have any suggestion to improve, also in view of future Code4Europe outputs for year 2?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional comments: none.					
Name of the Deliverable Leader	<b>Avanade</b>				
Submission Date	<b>31/03/2025</b>				

