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1. Employability and career planning

Web design and development

Introduction

Web development is the most impotent thing in the future. Because we all are using websites in our day-to-day life. There are so many job titles in web development. let's see some.

- Programmer vs. Developer
- Web Developer vs. Software Engineer
- Front End Engineer
- Back End Engineer
- Full Stack Engineer
- Software Architect

Web developers need to know HTML, CSS and JavaScript and machine learning. A web developer must have good practice in coding and creative thinking as well. Web developers have two main career ways to settle on, counting on work vogue and level of expertise. you may decide on a stable, salaried position, or relish a lot of autonomy as an associate degree freelance contractor. Those who like operating with a team and appreciate a stable supply of financial gain tend to be happier in a very full-time position. You'll work closely with alternative programmers and designers, learning from members of your team. If you encourage senior leadership that you're committed and reliable, you'll nearly actually have space to grow - particularly with larger corporations. And since programming skills are in demand, developers usually earn high paychecks, and cushy employee perks and could be eligible for bonuses.

I consider the web design and development modules at level 5 and level 6 because I can learn about my future career and it help me to improve and learn web designing and development career. I have already done my web design and development module coursework. It helps me to know about the basics and so many things in web design and development. If I want to be the best web developer,

first, I need to complete my degree and develop my basic coding and programming skills. This helps me to be a professional developer in this industry. Secondly, I need to work as an intern in a web development company. Get new knowledge and develop new skills and learn how to engage with clients and collaborate with other developers. The third one is my portfolio. Keeping an up-to-date portfolio that highlights the standard and breadth of your accomplishments can charm potential employers. Some corporations might need a portfolio once applying.

Capstone course materials completed work from past internships, and aspects of current projects all build nice portfolio items. Web development programs usually feature resources and opportunities to assist in building relevant portfolios. The fourth one is my certification. Certificates in web development provide many distinct benefits. These programs attest to any further skills or writing competencies learners possess and keep professionals up to this point with the most recent developments in this evolving field. A certificate may also provide candidates with an additional boost in the field.

The last one is Every aspiring web developer needs a concise and informative resume. This document is an extension of my professional self, so it is important to grasp the way to build a resume that accurately conveys my value. Successful resumes highlight the talents and qualifications that create people stand among other job candidates. candidates should list their programming competencies and coding languages, education and professional skills expertise, and the other technical skills or industry certifications.

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2. Ai and ethics

Introduction

AI is already happening nowadays and it's pervasive, usually invisibly embedded in our regular tools and as a part of advanced technological systems (Boddington 2017). Given the growth of pc power, the supply of big data thanks to social media and therefore the huge use of billions of smartphones, and quick mobile networks, AI, especially machine learning, has created important progress. This has enabled algorithms to require several of our activities, including designing, speech, face recognition, etc.

Artificial intelligence

AI has applications in several domains, including transport, marketing, health care, finance and insurance, security and therefore the military, science, education, job work and personal help (e.g., Google Duplex, Google Lens), entertainment, the humanities (e.g., music retrieval and composition), and etc. agriculture, and after all producing. AI is made and utilized by IT and network corporations. For example, Google has always used AI for its search engine. Facebook uses AI for targeted advertising and photograph tagging. Microsoft and Apple use AI to power their digital assistants. However, the application of AI is wider than the IT sector outlined in a restricted sense. as an example, there are several concrete plans for, and experiments with, self-driving cars. This technology is additionally supported by AI.

Ethical problems for AI

The main ethical problem that every artificial intelligence face is overcoming the task they were made for. This problem occurs because of the self-learning and self-programming ability of an AI. When this happens users will have issues with trusting an AI.

In a suggestion making artificial intelligence people can experience this ethical problem. When this AI starts to neglect users' data and show its own suggestions it will be an ethical problem. The root of this problem is the point where AI stops trusting the user inputs.

Also, there is another problem with this suggestion making AI. When they collect the purchase history of a user, they do not know whether it is a once in a lifetime purchase or not. This will lead the program to provide bad suggestions.

Impact of AI and ethics on society

Artificial intelligence will dramatically improve the efficiencies of our workplaces and augment the work humans can do. once AI takes over repetitive or dangerous tasks, it frees up the human force to try to work they're higher equipped for tasks that involve ability and sympathy among others. If individuals do work that's a lot of participation for them, it might increase happiness and job satisfaction.

With higher watching and diagnostic capabilities, computing will dramatically influence health care. By up the operations of health care facilities and medical organisations, AI will scale back in operation prices and save cash. One estimate from McKinsey predicts huge knowledge might save medication and company up to \$100B annually. actuality impact is going to be within the care of patients. The potential for personalized treatment plans and drug protocols similarly to giving suppliers higher access to data across medical facilities to assist inform patient care is going to be life-changing.

The rise of facial recognition

Biometric could be a sort of AI that involves the machine-controlled extraction, digitization and comparison of the spatial and geometric distribution of facial expressions to spot people. employing a digital photograph of a subject's face, a relief map of the position of facial expression is born-again into a digital guide, victimisation AN rule to match a picture of a face with one keep during information. pictures may be collected from repositories of passport or driver's licence pictures, or from the immense range of pictures that are uploaded to social media sites and therefore the net.

Biometric identity verification systems may be integrated with the electrical circuit tv systems that exist already publicly and in personal areas to spot individuals in real-time

(Smith et al. 2018). Biometric technologies are a part of a shift going down in society towards machine-controlled decision-making processes that involve restricted human intervention. whereas current literature on the topic notes that the ‘displacement of agency from humans to machines, raises moral questions on mediate social sorting and discrimination (Marciano 2019), it's additional typically centred on social science analysis of the problems and there's a spot in applied moral analysis which will offer a foundation for law and policy solutions.

Conclusion

Artificial intelligence is the greatest way to solve the problems in our life because it gives more reliable solutions. There are so many applications for artificial intelligence and it will increase the development of artificial intelligence. artificial intelligence technology will be more useful in future.

Reference

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3. internet of things and its cyber security implications

Introduction

The Internet of things or IoT has become a major trend in computer technology over the past few years. IoT consists of a few interconnected everyday devices. These can be home appliances, vehicle systems or workplace devices. Correct usage of IoT will bring benefits for individuals as well as for businesses. Because these devices are interconnected using the internet the benefits of IoT come with massive security issues. Internet of Things is still developing in its very first stage, and it causes IOT to become vulnerable to cyber-attacks.

Internet of thinking

Internet of Things (IoT) was 1st used in 1999 by British technology pioneer Kevin Ashton to describe a system during which objects within the physical world can be connected to the web by sensors. Ashton coined the term for instance the ability to connect Radio-Frequency Identification (RFID) tags used in the company to provide chains to the web so as to count and track merchandise while not the requirement for human intervention. Today, the web of Things has become a well-liked term for describing eventualities during which Internet property and computing capability reach a spread of objects, devices, sensors, and everyday items.

While the term “Internet of Things” is comparatively new, the idea of mixing computers and networks to monitor and manage devices has been around for many years. By the late Seventies, as an example, systems for remotely observance meters on the electrical grid via phone lines were already in business use. In the 1990s, advances in wireless technology allowed “machine-to-machine” (M2M) enterprise and industrial solutions for instrumentality observance and operation to become widespread. several of those early M2M solutions, however, were supported by closed purpose-built networks and proprietary or industry-specific standards, instead of on web Protocol (IP)–based networks and web standards.

Using science to attach devices apart from computers to the web isn't a replacement plan. the primary web “device”—an IP-enabled toaster that would be turned on and off over the Internet—was featured at an Internet conference in 1990.¹⁶ Over consequent many years, alternative “things” were IP-enabled, as well as a soda machine¹⁷ at Carnegie Mellon University within the America and an occasional pot within the Trojan area at the University of Cambridge within the GB (which remained Internet-connected till 2001). From these arbitrary beginnings, a robust field of analysis and development into “smart object networking” helped produce the muse for today’s web of Things.

Cyber security in internet of things

one key challenge that should be overcome so as to push IoT into the important world is security. Security challenges with reference to IoT line up with the standard info Systems (IS) security objectives (SO) that are confidentiality, integrity, and knowledge availableness. Moreover, there are different security challenges that seem to be IoT-specific. as an example, the merging of cloud computing and IoT, exposes IoT platforms to cloud elicited vulnerabilities like those contained. cloud elicited vulnerabilities known in 2015 from the common vulnerability information. These vulnerabilities that are inherent in cloud applications are possible to impact IoT solutions and services because the two emerge.

solutions for security issues

In an Internet of Things system, security should cover every aspect without leaving a single loophole because IoT systems are more vulnerable. To secure the IoT network from unauthorized access two-step verifications, trusted devices or a firewall to access control are useful security steps. For preventing data manipulation an encryption method is essential.

Conclusion

The Internet of things is the new improvement of internet. Internet of things use few devices and do lots of creative and important things. Internet of things has lots of benefits and few dangerous security issues that can be solved. IoT is most helpful things to our life.

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