Skills

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When pursuing an endeavor, whether it be your career or life in general, it is important to continue to develop and find new tools for your metaphorical toolbox of skills. Finding time to take a step back and look at where you could improve and hone your craft is important to remain relevant in your field. Just because you are a computer scientist doesn't mean you shouldn't be learning about business or management. Every career path takes knowledge from every other career path. Adopting this philosophy leads to a well rounded view of the world, and how you fit in it. After contemplating several skillsets, we will explore the Eisenhower Matrix, Security Certifications, and IT System Architecture.

The Eisenhower Matrix is a vital part of being successful in your career as well as life in general. The finite amount of time a person has can be wasted, or taken advantage of. Every day an individual can take control of the day or let it fade away without accomplishing anything. The process of managing the importance of activities or tasks can shed new light on your time management skill set. The Eisenhower Matrix divides these tasks or activities into a four quadrant matrix that allows the individual to step back and take a higher level look at how they manage their time.

[1]

	Urgent	Not Urgent
Important	Crying baby Kitchen fire Some calls 1	Exercise Vocation Planning 2
Not Important	3 Interruptions Distractions Other calls	4 Trivia Busy work Time wasters

The quadrants used in the Eisenhower Matrix are divided into important and urgent. Important tasks can be urgent or not urgent, urgent tasks can be important and unimportant. Tasks that are both important and urgent are of the most priority, these tasks should be taken care of immediately and personally. The tasks in this quadrant might be a crisis, deadlines, or problems that should be solved quickly to alleviate loss (Fire, health emergency, etc). Things in life can also be important, but not urgent. This category fits into the second quadrant in the matrix, and can include activities such as exercise or time with your family. While a problem is urgent, it can also be unimportant. When you are interrupted with a call or someone walking into your office, you find this task in the third quadrant. These activities are unimportant but urgent. Lastly, when we waste time on unimportant and nonurgent activities we find ourselves in the fourth quadrant. The fourth quadrant is not a productive way to spend your day, this would be considered a waste of time.

The Eisenhower Matrix is a great tool to visualize how you spend your time. If you are a visual learner, this method of time management can make a great difference in your efficiency. Drawing this matrix on a notepad every day and practicing the skill of this method will lead to a higher level view of your day. Prioritizing the important or urgent issues will lead to a more successful overall life and career. Visually writing down things that are unimportant and nonurgent will give you the opportunity to decide not to do them anymore.

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[1] Image from Wikipedia (1)

Another skill that can be very important, especially if you are in the field of software, is security. Given the amount of time people spend on the internet, and the type of information they are requesting, it is becoming more and more important to secure these transactions. Banking, medical, and password information is very private, and should be treated very carefully by developers. Infrastructures also can be taken advantage of, and rendered useless. These are just a few reasons why Security Certifications can be very advantageous.

The act of hacking has cost businesses a lot of money, as well as their credibility. The EC-Council Certified Ethical Hacker Certification is a program that gives students a hands on approach to security. Learning how hackers work is pivotal in designing software that blocks this behavior. Ethical hacking lets a developer truly understand the tactics employed by malicious hackers. The course is for anyone who would like to broaden their knowledge base to include cyber security and penetration testing. Penetration testing is the act of trying to find a hole in an application security layers. The EC-Council Certified Ethical Hacker Certification is a great place to get started with a hands on look at security (2).

Another certification that is valued in 2021 is the CompTIA Security+ certification. The CompTIA Security+ certification is one of the most valued certifications in the industry. The material covers a broad range of topics in the realm of information technology security. The program is intended for entry level developers and can build a great foundation for the rest of their career. The importance for security can not be overstated, as it builds trust between the general public and technology companies building new services (2).
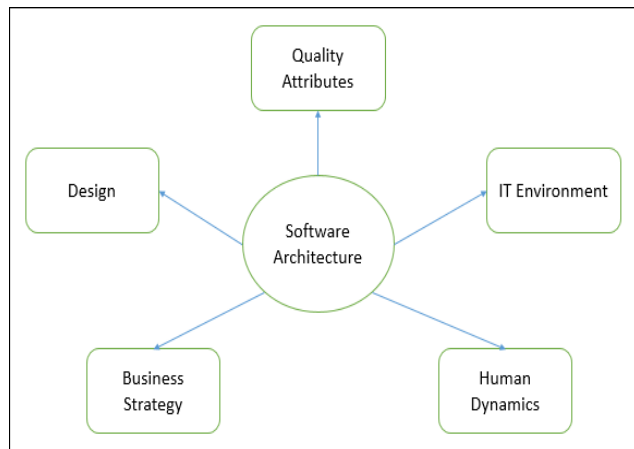
When designing and developing software, it is important to consider the damaging effects of a security breach. The value of a good security expert can not [2]be overlooked. The knowledge from these security certification can mean the difference in a successful product and a product users do not trust, therefore do not use. With technology becoming more and more important to our daily lives from paying bills to shopping, security will continue to be a thriving and important field in today's market.

Another skill that can be of great use in a technology driven society is IT System Architecture. Given the implementation of cloud platforms, architecture is more pivitial in today's market. The ability to design and test different ways technologies work together remotely has had a great effect on the technology industry. Cloud technologies such as Amazon Web Services, Google Cloud, and Microsoft Azure have taken away the responsibility of hardware management and allows developers to focus on the way components work together. The architecture of products can be tested and revamped with little to no overhead.

According to Wikipedia, systems architecture is the conceptual model that defines the structure, behavior, and more views of a system (4). Not only is the hardware and software developed, but the way certain products interact is also taken into consideration. As TutorialsPoint points out, "Architecture serves as the blueprint for a system. (5)" It allows

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[2] CompTIA image (3)

developers to take a 10,000 foot overview of a product. The details are not so important in this discipline, the focus is on how software and hardware can be fitted together to form one cohesive product that accomplishes the end goal of the project.

Software Architecture can be split into five categories. Design allows developers to take an overall look at a product, and try to think of ways it can become more efficient. Also, business strategy is important in that if a product doesn't help the business become successful it is not needed. Third, the human dynamic is taken into consideration. After all, humans will ultimately be the end user of a product and need to be taken into account. Another sector of software architecture is the environment for information technology. With the amount of users today, the environment should be scalable and reliable. Lastly, the attributes of a system should be considered, will this architecture design be a quality product once completed.

While all these skills can take a developer and make them more hireable. These practices can have a very beneficial effect on every sector of the workforce. More and more jobs are requiring the use of technology and time management is a valuable trait no matter what industry you are involved in. No matter where you are in life or career, it is never too late to hone your skills and learn something new. It is this advancement that keeps us fresh and on our toes. Finding out what you need help with is the first step to becoming better at it. Whether you want to learn about security, information technology architecture, or managing your time more efficiently with Eisenhower's Matrix, there has never been a better time than now.[3]

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[3] Image from Wikipedia (4)

Works Cited

1. Wikipedia. "Time Management." Wikipedia. https://en.wikipedia.org/wiki/Time_management. Accessed April 22, 2021.
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4. Wikipedia. "Systems Architecture." Wikipedia. https://en.wikipedia.org/wiki/Systems_architecture. Accessed on April 22, 2021.
5. TutorialsPoint. "Software Architecture & Design Introduction." TutorialsPoint. https://www.tutorialspoint.com/software_architecture_design/introduction.htm. Accessed April 22, 2021.