FOUR I.T. TRENDS - Summer 2023

NATIONAL CONVERGENCE TECHNOLOGY CENTER

The list below summarizes IT trends discussed by the National CTC's BILT (Business and Industry Leadership Team) at the May 2023 meeting. The purpose of these "trend talks" is to keep faculty – and their students – informed on the ever-evolving IT land-scape.

1 **Online forums like GitHub and Reddit provide value, but also carry risk.** One employer noted that entry-level workers won't know everything, so it's important to have a network of peers and know who to ask for help. These forums provide a valuable place for "geeks" to collaborate and brainstorm . That said, there are bad actors on the forums. These platforms can be risky. Employers emphasized the need to test anything pulled from an online forum in an isolated environment. Users need to make sure they remain mindful of security and safety.
Learn more: https://www.wired.com/story/github-tech-values/

2 **DevSecOps concepts are becoming more essential.** One employer noted that a huge part of the software development cycle is now in the DevSecOps pipeline. Those previously siloed development, security, and operations teams are now all working together and actively collaborating. Although small businesses can't always implement large scale DevSecOps systems, there are simpler automation strategies that serve similar purposes. As one employer noted, it's about "developing a mindset." Another employer noted that students – and new hires – may not need to be skilled in DevSecOps, but they should know that there is an ongoing industry consolidation. Too many problems arise from teams that don't work together. Students need to see that IT is connected, not separated in silos. Case studies and group projects are good ways to teach students this concept.
Learn more: https://www.infoworld.com/article/3681097/what-is-devsecops-securing-devops-pipelines.html

3 **IT professionals must embrace lifelong learning.** Employers are often looking for skills the company lacks. That is, the "old folks know the old stuff, so they want someone who knows the new stuff." One employer told the story of a successful engineer whose appetite to always learn and stay on the cutting edge took him far in his ca-reer even without a bachelor's degree. Employers agreed that the day someone gets a certification is the day they need to start self-learning on that topic to stay current.
Learn more: https://www.pewresearch.org/internet/2016/03/22/lifelong-learning-and-technology/

4 **If possible, students should learn more than one cloud platform.** Students don't need to be experts, but they need exposure on AWS, Azure, and Google Cloud. AWS remains the market leader, but employers in some re-gions may have a need for Azure or Google technicians. The cloud platform schools teach should be driven by the local job market. One employer suggested students develop skills in AWS but get exposure to others. Another employer, however, noted that these platforms are all GUIs and therefore asserted any of them can be learned so long as students know the underlying fundamentals of working with virtual machines.
Learn more: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-cloud-computing-skills-shortage-new.pdf

For a deeper dive into these topics and others, download the May 2023 BILT meeting minutes, which can be ac-cessed for free here: https://nationalctc.nationalctcwiki.org/bilt.