The major of Computer Science is one that has seen rapid growth, especially over the past three decades. As society moves into an evermore increasing technological age, the demand for high-quality programmers and engineers has reached an all time high and the major itself is not limited; containing many available offshoots and branches. With a discipline so broad, full-stack engineering is a career path that stands out to me, as it makes you responsible for both the front and back-end development necessary for seamless and efficient web design. However, a creation has emerged recently that has seemingly turned the computing world on its head: artificial intelligence. It allows for near instantaneous creation of code or data that just months past would have taken a person a significant amount of time to compile. This revelation has sparked new growth in the industry although some have grown to rely on AI in software development. In this sense, ethical considerations need to be more carefully considered. The Association for Computing Machinery establishes a code of conduct that puts emphasis on honesty, fairness and social responsibility when bringing AI into the software development sphere.

AI has, in quick order, left its mark on the computing world. Developers are able to use Ai tools that generate predictive coding, debugging and even testing that shreds potential hours from development time. The increase in efficiency is simply too large to overstate, making software development seemingly simpler than it ever has been. However, in these benefits, ethical concerns are raised. The most prominent of which being the replacement of people in the occupational spheres. With AI being so readily available for little to no cost, it presents a significant risk to the job sphere as employers will look to replace workers with the tool whenever available, making some roles completely obselete (Johnson 45). On top of that, there is the issue of user privacy: that is to say that AI is trained by the mass inclusion of human-made

data to construct its own datasets and determine what reasonable responses are to a given scenario. In storing these human-made sets, a company must assure the proper steps are taken to guarantee that any given person's data is securely protected against the threat of leaks or breaches. Finally, another issue is bias present within an AI. A creator could create a biased AI by training it on data that has been preselected with the intent of pushing a particular agenda, creating an AI that will then provide slanted and skewed data to match the presets given to it by its creator.

Ethical Analysis

In order to fully grasp the ethical concerns of AI, we must take a look through a structured lens. The scientific method in particular gives us a proper framework from which to properly analyze the scene; that is to say that we must first identify the core dilemmas, craft hypothesis and then test our theories in a controlled experiment before evaluating the outcomes.

When bringing in a biblical worldview, we must consider moral values such as responsibility and fairness. In Genesis 1:36, it is noted that righteous decision-making is of utmost importance, and we as people should stray away from actions that could cause harm to out neighbors. Applying this to the viewframe of AI, it means that AI must be created in such a way that human productions aren't put down or diminished. Ideally, AI should benefit society as a whole.

On the other hand, the ACM Code of Ethics provides a professional stance on AI ethics. It establishes guidelines that encourage developers to prioritize fairness, transparency, and accountability when working with AI. This code promotes ethical decision-making in software development by requiring engineers to actively mitigate bias, protect user privacy, and prevent harm through responsible AI usage (ACM 12).

Comparison of Ethical Perspectives

In examining both the Christian and professional worldviews, it is clear they both emphasize fairness and personal responsibility when working with AI. In both cases it is clear that developers should make an active effort to prevenet harm and take the responsibility unto themselves to assure Ai is used in ethical ways.

However, there are some notable differences in the viewpoints. In the Christian perspective, you could argue that it is viewed that AI should almost never be used in place of human involvement whenever any kind of moral judgement is a possibility. In ACM, there is a much more lackadaisical approach to the question, allowing some space for AI involvement.

Conclusion

It is readily evident that AI has had a huge impact on full-stakc engineering, while not completely reshaping the industry. That said, its ethical dilemmas, such as human replacement, data privacy and bias must be addressed as a tool with such broad applications cannot be allowed to operate unchecked. The Christian worldview provides a moral foundation that emphasizes the importance of ethical responsibility, while the ACM Code of Ethics outlines professional guidelines to ensure responsible AI development. While these perspectives differ in approach, they share a common goal: ensuring that AI is used ethically and responsibly. As full-stack engineers continue to integrate AI into their work, maintaining ethical integrity will be critical in shaping the future of technology.

Works Cited

ACM. "ACM Code of Ethics and Professional Conduct." Association for Computing Machinery, 2018, www.acm.org/code-of-ethics.

Brown, Michael. Data Privacy and AI: Challenges and Solutions. Tech Press, 2022.

Johnson, Emily. The Future of Work: AI and Employment Trends. Digital Horizon Publishing, 2023.