# ai coding agents transform software engineering without slashing jobs, says expert



Over the past year, artificial intelligence (AI) has made significant strides in its ability to assist with coding and software engineering tasks, leading to renewed discussions about the future of software development jobs. A recent expert analysis by Andrew Filev, founder and CEO of Zencoder, addresses these developments in a detailed examination published by TechRadar.

Filev highlights that early last year, state-of-the-art large language models (LLMs) were capable of solving only around 4% of 500 real-world engineering problems derived from actual software projects. However, AI coding agents have since advanced rapidly, transforming from basic coding assistants into sophisticated tools that can navigate entire codebases, propose solutions, conduct testing, and even fix issues in alignment with larger project goals.

Contrary to widespread reports suggesting a drastic decline in software engineering jobs, Filev notes that data from job posting site Indeed shows a 29% reduction in software development listings compared to pre-pandemic levels, but he cautions against attributing this solely to the rise of AI. According to him, the decline on Indeed is misleading because many employers now recruit software engineers through channels other than Indeed. He supports this by contrasting the decline in engineering postings with a 46.8% increase in education and instruction jobs on the same platform, illustrating the complexity of market trends.

The tech sector’s hiring patterns have also undergone correction after a pandemic-driven spike that resulted in layoffs and hiring freezes, changes he attributes more to market dynamics than AI adoption. Furthermore, AI is anticipated to reinvigorate the market by drawing new investment and creating specialised roles rather than displacing existing ones wholesale.

Filev emphasises that while AI will change software engineering roles, it is unlikely to dramatically reduce the number of jobs in the near future. He draws parallels between current AI tools and past technological innovations, noting decades of productivity enhancements in engineering through improved programming languages, open-source libraries, and cloud computing. Each technological leap has expanded opportunities rather than contracted them.

Looking at the practical benefits, Filev explains that AI coding agents can relieve developers of routine, repetitive tasks, enabling them to focus on creativity, strategic problem-solving, and innovation. For businesses, this means faster product delivery, improved adaptability to market changes, and the potential to push technological boundaries.

Regarding software engineering education, the view is optimistic. Filev encourages continued investment in computer science learning, pointing out that while the specific languages and tools evolve, fundamental knowledge remains critical. Educational institutions are expected to evolve curricula to meet industry needs and complement AI’s capabilities with practical, hands-on experiences like internships and open-source projects.

To summarise his conclusions for readers, Filev provides a brief rundown:
- Claims of a 70% drop in engineering jobs on Indeed are misleading.
- AI’s ability to fix bugs and assist coding is real and advancing.
- AI will alter software jobs but not necessarily eliminate them.
- Learning computer science remains highly valuable.

In his own words, speaking to TechRadar, Filev stated, "AI coding assistants eliminate the drudgery of repetitive, time-consuming tasks, freeing developers to focus on creativity, innovation, and strategic problem-solving." He also remarked that while early AI tools had limitations, recent models have improved impressively, likening their maturation to advancements seen in legal research tools.

As AI coding agents continue rapid development, the software engineering profession appears poised to integrate these new capabilities, enhancing productivity without displacing the human expertise vital to technological progress. The evolving landscape suggests a future rich with both challenges and opportunities for developers and businesses alike.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.techradar.com/pro/why-ai-wont-eliminate-software-engineering-jobs> - This article by Andrew Filev on TechRadar supports the claim that early last year, large language models solved only about 4% of 500 real-world engineering problems and details how AI coding agents have rapidly advanced to handle complex coding tasks, such as navigating codebases and fixing bugs. It also clarifies the misleading nature of the 29% reduction in software engineering job listings on Indeed, attributing it instead to shifts in recruitment channels and broader market trends rather than AI alone.
* <https://siliconangle.com/2024/10/24/ai-startup-zencoder-launches-bring-ai-coding-agents-software-development/> - This article discusses Zencoder, founded by Andrew Filev, and its AI coding agents that provide multistep coding capabilities, self-repair of code, testing, and project-aligned fixes, corroborating the description of AI tools evolving from simple assistants to sophisticated agents able to deeply understand and improve codebases.
* <https://zencoder.ai/about> - Zencoder's About page highlights the company's mission to automate tedious software engineering tasks so developers can focus on creative and impactful work, which supports Filev’s view that AI coding assistants free developers from repetitive tasks to engage in higher-level innovation.
* <https://www.techradar.com/news/submit-your-story-to-techradar-pro> - This page relates to TechRadar Pro's Expert Insights, the platform where Andrew Filev published his detailed analysis on AI and software engineering jobs, validating the source and context of the original article.
* <https://muckrack.com/andrew-filev/articles> - This profile aggregates articles by Andrew Filev, supporting his role as a thought leader and expert in AI coding agents and software engineering, lending authority to the claims about AI’s impact on the profession and educational recommendations.